MIGRATION, INTEGRATION, AND ADOLESCENCE IN CONTEMPORARY GERMANY

Max Reason

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Approved by:

Ted Mouw

Jacqueline Hagan

Barbara Entwisle

Rahsaan Maxwell

Krista M. Perreira

ABSTRACT

Max Reason: Migration, Integration, and Adolescence in Contemporary Germany
(Under the direction of Ted Mouw)

A long history of immigration since the Second World War has led to a Germany that is today comprised of many distinct migrant-origin groups, each with different timelines of migration, and each experiencing different push and pull factors that ultimately led them to settle in Germany. Adding to the complexity of the situation is the presence of differing contexts of legal and social reception experienced by these migrant-origin groups once in Germany. It is within this social reality that young Germans of migrant origin experience the important developmental stage of adolescence.

This dissertation comprises three empirical research studies, each pertaining to migration, integration, and adolescence in contemporary Germany. The first empirical chapter investigates how measures of migrant integration across the parent and child generation are associated with ethnic disparities in secondary-school tracking, and how these integration factors work across generations to influence the schooling outcomes of migrant-origin children. The second empirical study explores the longitudinal growth trajectories of national and ethnic identity across adolescence and analyzes differences in these trajectories as a function of generational status and national origin. The third empirical study aims to better understand how native-German young adults understand different push factors of forced migration to be legitimate claims for refugee status and entry into Germany, and to conceptually group this population based on their attitudes towards refugee legitimacy.

Results from the first empirical chapter indicate that for Turkish youth, disparities in secondary-school tracking are largely explained by lower levels of socioeconomic status among Turkish-origin families, while those of Southern-European origin exhibit a more complex relationship between intergenerational integration and school tracking. Results from the second empirical chapter show that

national and ethnic identity formation are largely independent processes for migrant-origin youth, and that differences in identity development between those of different generational statuses are a function of national origin. Finally, the third empirical chapter found four distinct understandings of refugee legitimacy within the native-German young adult population, each of which were associated with demographic, social network, and attitudinal factors.

To Rex, Christa, Ashton, Katya, Jack, Natalya, and Cindy

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LIST OF ABBREVIATIONS

AIC	Akike Information Criterion
aBIC	adjusted Bayesian Information Criterion
AME	Average Marginal Effects
BIC	Bayesian Information Criterion
CFI	Comparative Fit Index
CILS4EU	Children of Immigrant Longitudinal Survey in Four European Countries
DF	Degrees of Freedom
EU	European Union
FIML	Full Information Maximum Likelihood
FRG	Federal Republic of Germany
ISCO-08	International Standard Classification of Occupations - 2008
LCA	Latent Class Analysis
MAR	Missing at Random
NMAR	Not Missing at Random
OLS	Ordinary Least Squares
OPEC	Organization of the Petroleum Exporting Countries
RMSEA	Root Mean Square Error of Approximation
TLI	Tucker-Lewis Index
UN	United Nations
US	United States
U.S.S.R.	Union of Soviet Socialists Republics

CHAPTER 1: INTRODUCTION

"The Federal Republic of Germany is not a country of immigration"

– German Federal Naturalization Guidelines, 1977 (in Koopmans 1999)

This 40-year-old statement describes a Germany that does not exist today. As we enter the third decade of the 21st century, Germany has the second largest foreign-born population of any nation in the world and almost a quarter of the German population has a *Migrationshinterground*, or "migration background" (Statistische Bundesamt 2019). National debates over migration and migrant integration have dominated the media and public discourse in Germany over the last two decades and the nation itself is only a few years removed from the highest annual net migration seen in its 148-year history (Federal Office for Migration and Refugees 2018). However, even in 1977 when the statement above was produced by the West German federal government in their Federal Naturalization Guidelines, denying that Germany was a country of immigration was, at best, wishful thinking. As early as 1955, the German government was actively recruiting millions of labor migrants from across Europe, and during the 1970s the foreign-born population of Germany nearly doubled from 2.6 million to 4.4 million (Göktürk et al. 2007). Yet, despite the large number of migrants and migrant families settling in Germany, the German government steadfastly held to the conviction that Germany was not a country of immigration through the end of the 20th century. It was only after the turn of the new millennium that the German government began to create policy and draft legislation aimed at facilitating immigration and migrant integration, by which time over 14 million people in Germany were migrants or had a migration background (Statistische Bundesamt 2019).

This long history of immigration has led to a Germany that is today comprised of many distinct migrant-origin groups, each with different histories and timelines of migration, and each experiencing

different push and pull factors of migration that ultimately led them to migrate and settle in Germany. Complicating the situation further is a framework of immigration law that facilitates or inhibits immigration based on a migrant's sending nation and a patchwork of *jus sanguinis* and *jus soli* citizenship laws that preference the naturalization of some migrants over others. Different migrant-origin groups have also been exposed to varying levels of social acceptance by the native-German population as a function of religion or assumed assimilability. As a result, the social boundaries that exist between native Germans and those of different migrant-origin groups are group-specific and have strong implications for the integration, economic success, and overall well-being of these groups. It is within this social reality that young Germans of migrant origin experience the important developmental stage of adolescence.

This dissertation comprises three empirical research studies, each pertaining to migration, integration, and adolescence in contemporary Germany. The first empirical study, presented in Chapter 2, is entitled "Family Integration and the Secondary-School Tracking of Migrant-Origin Children in Germany". This chapter investigates how measures of migrant integration across the parent and child generation are associated with ethnic disparities in secondary-school tracking, and how these integration factors work across generations to influence the schooling outcomes of migrant-origin children. The second empirical study, presented in Chapter 3, is entitled "Adolescent Trajectories of National and Ethnic Identity in Germany". This chapter explores the longitudinal growth trajectories of national and ethnic identity across adolescence and analyzes differences in these trajectories as a function of generational status and national origin. The third empirical study, presented in Chapter 4, is entitled "Who Should Be Allowed In?: Understanding Native-German Attitudes Towards Refugee Legitimacy". This final empirical chapter aims to better understand how native-German young adults understand different push factors of forced migration to be legitimate claims for refugee status and entry into Germany, and to conceptually group this population based on their attitudes towards refugee legitimacy.

Throughout this dissertation, the term "migrant origin" will be used to describe members of the German population who have a personal or family history of migration into Germany from a non-German nation. The use of this term is deliberate and is a function of the vast heterogeneity in the non-native

German population. The term "migrant" is too narrow, as the scope of this project includes those of non-German ancestry who were born in Germany, and the term "migrant ethnic" is misleading, as a large proportion of those in Germany with family histories of migration are ethnically German (Hess 2016). The term migrant origin is also preferable to the term "migration background", or *Migrationshintergrund*, used by the German government, legally defined as those with "at least one parent who did not acquire citizenship at birth" (Statistische Bundesamt 2019). While a majority of German adolescents with family histories of migration would be classified as having a migration background, the definition of this term is grounded in the concept of citizenship, not the actual movement of individuals and families across international borders. Given the complexities of German citizenship law (which is discussed in greater detail in the next section), not all Germans with family histories of migration would be considered to have a *Migrationshintergrund*.

For the remainder of the introduction, a brief history of German in-migration and citizenship law is given to contextualize the present situation. This brief history is followed by a section that presents the specific research questions of each empirical study and a discussion of how each chapter contributes to the current social science literature. After that is a description of the data that are used for the empirical analyses. Following the introduction section are the three empirical research chapters described above, along with a final conclusion section that discusses the findings from the three empirical studies and addresses future research directions.

History of Migration and Citizenship Law in Germany

The idea that an individual could be "German", or that there existed a German "nation", is an idea that long predates the formation of a unified German state. In fact, many of the great German scientists, philosophers, and cultural icons of the 19th century, including Carl Fredrich Gauss, Alexander von Humboldt, Johann Wolfgang von Goethe and Ludwig van Beethoven, never actually lived in a world where there existed a geopolitical entity called "Germany" (or *Deutschland*, in German). Throughout the 18th and 19th centuries, the idea that there was a German "people", or *Volk*, with a common language and

ethnicity, was accepted by those both within and outside of what would eventually become the state of Germany (Greenfeld 1992). However, it was only in 1871 that Germany was consolidated into one nation. In 1913, on the eve of the First World War, the first law defining the acquisition of German citizenship was written, in which it was stated that "[l]egitimate children of a German man acquire the citizenship of the father at birth" (Göktürk et al. 2007). Ultimately, the aim of this law was to divorce the concept of citizenship from any notion of territory and to establish the citizenry as a "community of decent" (Brubaker 1992). Despite the turbulent decades that were to follow, which included two world wars, the formation of several governments, and the separation and re-unification of the German state itself, this 1913 citizenship law remained in place for the duration of the 20th century, reaffirming the exclusive understanding that "Germanness" was transferred through lineage.

While German citizenship law remained largely unchanged through the 20th century, the second half of the 1900s was marked by rapid demographic shifts in Germany. In the immediate aftermath of the Second World War, the extensive need to rebuild the destroyed infrastructure and economy of Germany, coupled with the massive casualties inflicted on the German population as a result of the war, led to a labor shortage that needed to be filled (Alba and Foner 2015). Although an initial inflow of ethnic German refugees pushed westward by the shifting borders of the U.S.S.R. and Poland helped supplement some of this demand (Göktürk et al. 2007), by the 1950s, the continued labor shortage forced the government of the Federal Republic of Germany (FRG, or West Germany) to begin actively recruiting foreign workers. Initially, the FRG looked to Southern Europe to fill this labor shortage, initiating the first intergovernmental contracts for labor recruitment, or *Gastarbeiter* (Guest worker) programs, with Italy (1955), Spain (1960), and Greece (1960) (Göktürk et al. 2007). The shortage in labor again became more acute in 1961 when completion of the Berlin Wall ended the stream of East German workers migrating to the West, leading the FRG to expand its guest worker programs to Turkey (1961) and Portugal (1964). By 1973, however, with the end of the post-war economic boom, the economic shock of the OPEC oil crisis, and rising anti-immigrant sentiment within the native population, the FRG put a stop to all guest worker migration programs (Göktürk et al. 2007).

Contradictory to the intentions of the FRG, the end of the guest worker programs saw a massive increase in the foreign-born population, nearly doubling from 2.6 million to 4.4 million between 1973 and 1980 (Göktürk et al. 2007), primarily the result of sponsorship laws in the post-1973 era that allowed for family reunification (Constant and Massey 2002). Though it was clear that these labor migrants and their families were beginning to settle permanently in the FRG, the government continued to deny the role of Germany as a permanent destination for immigrants, explicitly stating in their 1977 Federal Naturalization Guidelines that "[t]he Federal Republic of Germany is not a country of immigration; it does not strive to increase the number of German citizens by way of naturalization" (Koopmans 1999). The unwillingness to address the growing reality of immigration also inhibited any reform to the nation's *jus sanguinis* citizenship laws and all children born in Germany to migrant parents retained the foreign citizenship of their parents. As a result, a substantial proportion of the "foreign" population was in fact born in Germany (Green 2012).

After a period of relative stability between 1949 and 1989, the fall of the Berlin Wall and the collapse of the Eastern Bloc sparked a new age in the Federal Republic of Germany, now reunited with East Germany as a single, western, democratic nation. The shifting political context both within and outside of Germany made the last decade of the 20th century an important turning point for migration and integration for three reasons. First, it was in this decade that the perception of the "migrant" shifted in common discourse from the blue-collared worker filling a labor demand to a refugee fleeing turmoil in a native land. The end of the Cold War saw the "return" of around 3 million ethnic Germans (*Aussiedler)* who were fleeing political uncertainty and economic hardship in Poland, Romania, and the former Soviet Union, many of whom were eligible for immediate citizenship due to Germany's ancestry-based citizenship laws. Though ethnically German, most of these migrants were culturally distinct from the majority German population; few spoke German, and integration initially proved difficult (Hess 2016). Resentment began to grow towards these "latecomers" (*Spätaussiedler*), despite Chancellor Helmut Kohl's call to recognize these new Germans as "fellow countrymen" who, until the fall of the USSR, "suffer[ed] heavily from the consequences of the Second World War" (Kohl 1988, in Hess 2016).

Second, it was in the 1990s that Germany passed several pieces of legislation that reformed the nation's citizenship laws. The Foreigner Law of 1990 introduced the provision that migrants between the ages of 16 and 23 were eligible for German citizenship if they had resided in Germany for eight years. Older migrants were eligible after 15 years of residence, and this eligibility was also granted to their spouses and dependents. However, renunciation of previous citizenship was necessary in order to be granted German citizenship (Anil 2005). Over the course of the decade, this law was changed on several occasions, limiting the time requirements for eligibility (Anil 2005). It was at the end of the decade, however, that Germany enacted the most drastic change to its citizenship laws, when the government ratified the still-active Nationality Act of 1913 in 1999. As a result of this ratification, German citizenship law included a provision to allow for *jus soli* citizenship by granting citizenship at birth to the children of non-German citizens, if at least one parent had resided legally in Germany for eight years, or three years if the parent was on an unlimited permanent residence permit (Anil 2005). Though the stipulations of the law inhibit around half of all migrant-origin children born in Germany from receiving birthright citizenship (Green 2012), this new law marked a radical shift in the understanding of national belonging in Germany, at least from a legal standpoint.

Third, Europe's efforts to increase continental unity increased dramatically after the end of the Cold War. In 1990, the Schengen Convention largely abolished internal border controls between the nations of Europe, and for the first time, the movement of people across borders in Europe was unrestricted. In 1992, the signing of the Maastricht Treaty laid the groundwork for the future of the European Union (EU) and the concept of European citizenship. As a defining principle of the Union, the right for residents of any EU nation to live and work in any other EU nation was granted, effectively removing any barriers to inter-European migration and settlement. Over the course of the next decade, the movement of EU nationals into Germany increased dramatically, and by 2000, 1.9 million non-German EU-citizens lived in Germany (Koikkalainen 2011).

At the turn of the new century, Germany appointed the Independent Commission on Immigration (*Unabhängigen Kommission Zuwanderung*) to finally address the role migration and integration would

play in the future of Germany. In 2001, the commission released their report regarding the state of immigration in Germany, the first line of which stated that "Germany needs migrants" and that "the regulation of immigration and the integration of immigrants will be the most important political task of the next decade" (Unabhängigen Kommission Zuwanderung 2001). It would be another four years before the government officially accepted this already publicly understood reality, and in 2005, the first comprehensive immigration and integration law was passed. This law had the effect of standardizing and streamlining the process through which potential migrants could be granted residency and the right to work. Perhaps more importantly, it also emphasized the need for the social integration of both incoming migrants and the 7.3 million foreign nationals already living in Germany. State-funded German language classes and civics courses for immigrants were created to this end (Bauder 2008). Overwhelmingly, the intent of the 2005 Immigration Law was to facilitate the structural integration of migrants and their children into the realm of the mainstream labor market, and the primary way in which the German government sought to do this was through these courses (Bendel 2014). While the German government saw both the language and social integration courses as necessary to facilitate the entry of migrant populations into the German mainstream, with evidence indeed showing higher employment probabilities among migrants who have taken these courses (Kosyakova and Sirries 2017), these policies have been criticized as thinly veiled attempts to assimilate migrants into traditional German norms and behaviors (Bendel 2014; Weber 2012; Yardakul and Korteweg 2013).

While levels of immigration slowly declined in the early part of the 21st century, even reaching negative net migration during the Great Recession of 2008 (Statistische Bundesamt 2019), recent turmoil in the Middle East has created a situation in which Germany has again become the receiving state for a large, sudden inflow of migrants. The Syrian Civil War and the unrest that it has caused not only in Syria but also in many bordering Arab states has created a refugee crisis that today impacts all of Europe. In September of 2015, German Chancellor Angel Merkel began an open-door policy of accepting refugees, many of whom were awaiting relocation in Hungary and other South-Eastern EU nations. Merkel's policy also lifted the 1993 amendment to Article 16 of the Basic Law, stating that asylum seekers must register

for asylum in the first EU nation they enter, allowing these migrants to register in Germany. Though the German government almost immediately began to curtail this policy in the face of dramatic inflows of asylum seekers, by the end of the year, 890,000 asylum seekers had come to Germany, leading to 722,370 asylum applications in 2016 (Federal Office for Migration and Refugees 2018). Even with the continued barriers to irregular migration put into place by Germany and many other EU nations, refugees continued to enter Germany through 2016. By December of 2016, 1.6 million refugees, mainly from the war-torn nations of Syria, Afghanistan, and Iraq, had applied for protection from the State and were waiting in Germany (Federal Office for Migration and Refugees 2018). Forced migrants awaiting asylum decisions currently make up 16 percent of the foreign-born population (Statistische Bundesamt 2019).

Research Questions and Contributions to the Literature

Given the long history of immigration and settlement in Germany, there are many sociologically important research topics one could analyze pertaining to both the migrant-origin groups that have become part of the German population and to the native-German majority itself. The three empirical papers of this dissertation each focus on one topic related to migration in Germany, and in particular how this demographic phenomenon has shaped the lives of those Germans, both migrant-origin and native, who are transitioning through the adolescent life course and into young adulthood. Additionally, each of these chapters provide an important contribution to the literature, by both accounting for limitations in previous research and answering novel research questions that have yet to be explored.

Chapter 2

In Germany, students of migrant origin are less likely to be tracked into the most prestigious form of secondary schooling within Germany's highly structured schooling system (Fernandez-Kelly 2012; de Paiva Lareiro 2019). Given the opportunity structures that are available after graduation based on the secondary school that one attends (Allmendinger 1989; Powell and Solga 2011), this has implications for the socioeconomic mobility of migrant-origin youth across the life course. The strong intergenerational

transfer of education in Germany means that the educational disparities between migrant-origin groups are reproduced across generations as well (Breen and Jonsson 2005; Maaz et al. 2008; Vleminckx and Smeeding 2001). Building on existing debates pertaining to the most important factors in the perpetuation of ethnic disparities in the German secondary-schooling system, the first aim of this study is to answer two research questions. First, to what extent do measures of family-level integration, namely parental socioeconomic status, household language use and experience with the German schooling system, and acquisition of German citizenship at both the parent and child level, mediate the relationship between national origin and secondary-school tracking? And second, does the extent to which these integration factors mediate this relationship differ between those of Turkish origin and those of Southern-European origin? Then, using a theoretical model of intergenerational integration based on the current body of literature and the specifics of German naturalization law, the second aim of the chapter is to answer three additional research questions. First, how are measures of parent and child integration directly associated with secondary-school tracking among migrant-origin children in Germany? Second, how are the effects of more upstream variables of integration on the school tracking of children mediated by more downstream measures of parent and child integration? And third, how do the direct and indirect effects of intergenerational family integration on school tracking differ between those of Turkish origin and those of Southern-European origin?

While research on the educational attainment of migrant-origin children in Germany has identified several mechanisms that influence the disparities seen in secondary-school tracking, Chapter 2 of this dissertation builds on previous research by accounting for a large number of possible covariates in the relationship between national origin and education. Currently, there is debate about the extent to which each of these integration factors explain current educational disparities and which are the *most* important in determining secondary-school tracking outcomes for migrant-origin children in Germany. The data being used for this dissertation allow for the analysis of multiple integration factors and the unique contribution of each. Perhaps the greatest benefit of using these data to test questions regarding national origin and school outcomes is the ability to distinguish between national origin and citizenship.

Due to data limitations, citizenship status is often used as a proxy for national origin and ethnicity in the German context, a potential issue that has been noted by several researchers (Kristen 2008; Söhn and Özcan 2006). This has resulted in the inability of previous research to truly study the effect of parent and child citizenship in school tracking, independent of national-origin status. While some research has utilized the natural experiment of changes to German citizenship law to further this research (von Haaren-Giebel 2016; Sauer and Felfe 2014), the study of citizenship and school tracking within a survey sample of German children remains to be done.

Chapter 3

Adolescence is the period of the life course in which individuals begin to develop their social identities, or their understandings of the macro-level, socially determined "in-groups" they are part of and the "out-groups" they are not part of (Elder et al. 2015; Kroger 2006; Tajfel and Turner 1979). For those of migrant origin, this entails the development of both a national identity, defined as a feeling of attachment to the society of the receiving nation, and an ethnic identity, defined as a feeling a belonging to the nation or society from which they or their family is from (Berry 1997). Though the understanding that migrant-origin youth develop both a national and ethnic identity is well established in the social-psychological literature, further work is needed that investigates the trajectory of each of these social identities through adolescence (Fleischman and Verkuyten 2016; Wiley et al. 2019). Additionally, this work must account for the macro- and individual-level determinants of migrant-origin identity formation that can influence how strongly these youth adopt each of these social identities through adolescence (Deaux 2006). To further investigate the trajectories of national- and ethnic-identity growth among Germans of migrant origin, and the manner in which heterogeneities in these trajectories exist between those of different national origins and those of different generational statuses, this chapter aims to answer the following research questions. First, what are the appropriate functional forms of both national and ethnic identity trajectories across adolescence for those of migrant origin in Germany, and how do the functional forms of these trajectories differ as a function of national origin? Second, how do national and

ethnic identity covary among those of migrant origin, both at the beginning of adolescence and across adolescence, and how do these covariances differ as a function of national origin? And third, how do the adolescent trajectories of national and ethnic identity differ as a function of generational status, and how do these generational effects differ as a function of national origin?

The most important contribution of Chapter 3 is the longitudinal investigation of national and ethnic dual-identity development through adolescence. While there is large body of work investigating the presence of multiple social identities in migrant-origin adolescents, this work has primarily been cross-sectional in nature. The limitation of research utilizing only one time point is that it provides no understanding of identity growth over time, and thus inadvertently treats identity as a "state" rather than a "process" (Brown and Zagefka 2011). Given the dramatic changes that occur cognitively and socially across adolescence, it is important to investigate how social identity *changes* in these youth, and to do so in a manner that takes into account multiple forms of social identity (Fleischman and Verkuyten 2016; Wiley et al. 2019). Given the dearth of longitudinal research on dual-identity formation in general, there is also very little work that has investigated how national and ethnic identity interact throughout the adolescent life course. While work has been done that investigates the correlation of these two identities in migrant-origin populations, this work has also been largely cross-sectional and lacks an understanding of how these identities "are compatible with one another" over time (Verkuyten et al. 2019).

Chapter 4

Between 2015 and 2016, over one million refugee migrants from the Middle Eastern nations of Syria, Iraq, and Afghanistan migrated to Germany (Federal Office for Migration and Refugees 2018). As these migrants entered Germany, native Germans transitioning through adolescence during this time were experiencing the stage of life course in which attitudes towards racial out-groups are developed and become crystalized (Raabe and Beelmann 2011). Inevitably, this migratory shock played a role in defining how they have come to understand refugee "legitimacy", i.e., their opinions on which push factors of forced migration constitute legitimate claims to refugee status and legal entry into Germany. As

a topic of sociological study, attitudes towards refugee legitimacy are particularly important given that the primary determinant of native acceptance of refugees is the understood legitimacy of the refugees themselves (Czymara and Schmidt-Catran 2016, 2017; von Hermanni and Neumann 2019). Shifting the focus of the dissertation from adolescents of migrant origin to native-German young adults, this final empirical chapter aims to better understand how members of this population differ in their interpretation of which push factors of forced migration constitute legitimate reasons to be allowed into Germany as a refugee. Using the theoretical concept of "representational profiles" to classify groups of individuals that share the same attitudes towards a given object (here, refugee legitimacy), this chapter aims to answers two research questions. First, what are the representational profiles that exist among the native-German young adult population regarding attitudes towards refugee legitimacy? And second, how are these profiles associated with parental education, ethnicity of friendship networks, and attitudes towards migrant integration?

While some research has investigated how native Germans understand refugee legitimacy, with these studies finding that the push factor of migration is the single most important determinant of whether or not Germans think a given refugee migrant should be allowed into Germany (Czymara and Schmidt-Catran 2017; von Hermanni and Neumann 2019), the relative recency with which Germany has experienced this latest wave of refugee migration means that there is ample opportunity to contribute to the current body of literature on this topic. The use of latent class analysis also presents a novel method through which to study the concept of refugee legitimacy.

Overall Contributions

As each chapter of this dissertation focuses on a different aspect of migration, integration, and adolescence in the contemporary German context, multiple theoretical frameworks are utilized across the three chapters. However, one overarching contribution of this dissertation is the understanding that Germany presents a case in which to test the global applicability of sociological theories of integration primarily developed in the context of the United States. As an "Old World" state, the integration process

of migrant-origin populations in Europe, and in Germany specifically, has been argued to be fundamentally different than in the "Settler Society" of the United States (Alba and Foner 2014). The extent to which the process of integration over time may differ between Germany and the United States is a function of multiple heterogeneities between the two states, including differences in the historical and contemporary interpretations of statehood and citizenship, the presence or absence of established minority ethnic groups, and democratic systems that differentially facilitate the election of migrant-origin politicians (Mollenkopf and Hochschild 2010). And while the understanding of the "Old World" vs. "Settler Society" as a "grand narrative" that explains *all* transatlantic differences in migrant-origin outcomes has been called into question (Alba and Foner 2014), the applicability of American-focused integration theories to the German context has been understudied in the sociological literature.

Additionally, this dissertation builds on these sociological theories by broadening each theory to account for the unique social circumstances present in Germany. This includes expanding on U.S.-centric theories of assimilation and integration and reformatting them to include the role of the state, primarily as it pertains to the transmission of citizenship across generations. In more U.S.-focused theories, the role of citizenship is absent, as citizenship is automatically granted upon birth on U.S. soil. Within Germany however, citizenship laws are primarily *jus sanguinis* in nature, with non-ethnic Germans of any generational status having to go through a formalized naturalization process (save a few exceptional cases as the result of changes to the citizenship law in 2000 (Anil 2005)). In the intergenerational process of assimilation and integration, the requirement that those of non-German ethnicity engage in a naturalization process to acquire citizenship introduces *state-mandated* integration along the integration pathway, primarily in the realm of language acquisition and knowledge of cultural norms and values (Kaya and Kayaoglu 2012). This understanding of state-mandated integration requirements for citizenship in later generations is a necessary addition when studying Germany and a point of expansion to the available sociological theories of assimilation and integration.

Data

Data for this dissertation come from the German sample of the Children of Immigrants Longitudinal Study in Four European Countries (CILS4EU, Kalter et al. 2016). CILS4EU began sampling 14-year-old adolescents in Germany through in-school questionnaires during the 2010/2011 school year. All schools in Germany enrolling students in the 9th grade, i.e. the modal grade for 14-year-olds in the country, were included in the sampling frame (with the exception of those in the state of Bavaria, which did not give permission for the study researchers to collect data on students). Because Germany has an education system that includes many school types for students of the 9th grade, the schools in the sample were stratified by these school types. Additionally, schools were explicitly stratified by the proportion of the school that had students with immigrant youth. Schools were then randomly selected from each stratum, with oversamples in the strata containing schools with the highest proportions of immigrant youth. Within each school, between one and three 9th grade classrooms were randomly selected, with all students in the selected class providing data for the survey. In total, 99.7 percent of schools selected participated, with a total student participation rate of ~80 percent. In total, the first wave of the data collection captured 5,013 German 9th grade students, 2,577 of whom were of migrant origin (i.e., a history of family migration within the last three generations). Parents and teachers of the students were also solicited to complete a survey at the first wave, of which 78 percent and 91.5 percent respectively provided data.

Since the initial wave of data collection, six additional waves have been carried out in which these individuals have been re-interviewed. As many of these respondents are no longer in school, subsequent waves have shifted from in-school surveys (Waves 1 and 2) to in-home surveys (Wave 3), to a combination of in-home, mail, telephone and web surveys (Waves 4, 5, 6, 7). At Wave 6, a refreshment sample was collected through in-home interviews in order to account for attrition in the primary sample that occurred over the first five waves. As a result, the nationally representative nature of the data was restored. For respondents new to the sample at Wave 6, life history calendars were conducted to obtain information on family background, education, and other important variables that were collected prospectively from the respondents who were present since Wave 1.

These data were selected for several reasons. First, they are produced from a sample of German adolescents with a wide range of national origins and migration backgrounds. Because of the specific oversample of migrant-origin respondents, it is possible to use these data to investigate both differences between native and non-native Germans and between migrant-origin adolescents with different national origins. Additionally, the sample includes adolescents across multiple migrant generations. In the first wave, information was collected for 535 foreign-born respondents, 1,232 second-generation respondents (both parents born outside Germany), 563 respondents in the 2.5 generation (one native-born parent, one foreign-born parent), 492 third-generation respondents (at least one grandparent born outside of Germany), and 2,111 native-Germans with no family migration history (at least in the last three generations). Second, as a panel study, respondents have been re-interviewed annually. Having multiple waves of data on the same survey items allows for the analysis of trends across the early life course, and how these trends may differ based on the generational status and national origin of the adolescents in Germany. Additionally, because all survey respondents were roughly the same age at the first wave of data collection (i.e., of the same cohort), the data are less burdened by possible age affects that could complicate the analysis of longitudinal trends. Third, as the data collection effort specifically focused on gaining a better understanding of the process of integration, identity, and social mobility among Europe's migrant-origin youth, this dataset contains multiple survey items pertaining to acculturation, behaviors, values, language, social networks, and social achievement/conflict variables (educational outcomes, occupational outcomes, deviant behaviors, etc.). At Wave 1, information was also collected from the parents of the adolescent respondents, with many of the same items being asked on the parent survey. Finally, extensive documentation and software code is available to assist in using these data (Dollman et al. 2014).

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CHAPTER 2: FAMILY INTEGRATION AND THE SECONDARY-SCHOOL TRACKING OF MIGRANT-ORIGIN CHILDREN IN GERMANY

Introduction

Through a long history of immigration spanning the last 80 years, Germany has become one of the top migrant-receiving destinations in the world (United Nations 2017). In the wake of the Second World War, the Federal Republic of Germany (FRG) (or West Germany), experienced an extensive need to rebuild and an acute shortage of working-age males, both issues being the result of the war itself. Initially, the FRG looked to Southern Europe to fill this labor shortage by signing a bilateral labor recruitment agreement with Italy in 1955, and then with Spain and Greece in 1960 (Göktürk et al. 2007). Additional labor recruitment agreements were initiated with Turkey in 1961 and Portugal in 1964 (Göktürk et al. 2007). By 1973 however, with the end of the post-war economic boom, the economic shock of the OPEC oil crisis, and rising anti-immigrant sentiment within the native population, the FRG put a moratorium on all guest worker recruitment programs (Göktürk et al. 2007). Contradictory to the intentions of the FRG, the end of the guest worker program indirectly lead to a massive increase in the foreign-born population due to family reunification, nearly doubling from 2.6 million to 4.4 million between 1973 and 1980 (Göktürk et al. 2007). Today, almost five decades after the end of these labor recruitment programs, migrant families who originated from the nations of these labor agreements have become woven into the national fabric of the German nation. Those of Turkish descent are now the largest non-German ethnic group in Germany (Statistische Bundesamt 2019), and migration and settlement from Southern Europe continues unabated, as the formation of the European Union has substantially decreased the legal barriers for inter-European migration and employment. Despite this long history of immigration and settlement however, these migrant-origin groups experience disadvantage

across almost all measures of socioeconomic status and social mobility when compared to the ethnic-German majority (Beyer 2016; Kogan 2011).

Of primary importance are the disparities in secondary-school tracking that currently exist between natives and those of migrant origin, given the uniquely strong association between school tracking and later-life socioeconomic mobility in Germany (Allmendinger 1989, Alba and Foner 2015). Today, children of Turkish and Southern-European origin are starkly under-represented in the most prestigious track of the German schooling system (von Below 2007; Kristen and Granato 2007; Lüdemann and Schwerdt 2012; Sürig and Wilmes 2015) and several mechanisms for these disparities have been identified. Measures of integration at both the parent- and child-level, including parental socioeconomic mobility, family German language ability, and citizenship acquisition, have all been found to be associated with educational attainment among migrant-origin children (Kristen and Granato 2007; Bönke and Neidhöfer 2014; Krause et al. 2014; Sauer and Felfe 2014). However, the relative contribution of each of these measures of integration in predicting tracking outcomes remains to be investigated, particularly citizenship. The need for research that investigates the role of citizenship in the secondary school tracking of migrant-origin youth has been noted by education scholars (Kristen 2008), and the ability to engage in this research here is a major contribution.

Research is also needed to investigate how these forms of integration interact over generations to determine tracking outcomes among migrant-origin children. This can be done by adopting a framework that conceptualizes integration as a multi-stage, intergenerational process. Milton Gordon's model of assimilation (1964) is one such framework. This model of assimilation posits that integration is a process that occurs across the life course and across generations, and that some forms of integration inherently occur before other forms, i.e., that some measures of integration act as more "upstream" measures of integration, while others act as more "downstream" measures of integration across parent and child generations. Ultimately, this process of integration can have implications for the secondary-school tracking of those in the youngest migrant-origin cohort. Using the current body of knowledge on the associations between multiple measures of integration in Germany, this study will contribute to

sociological integration theory by building a conceptual model of intergenerational integration among those of migrant origin that takes into account the historical and legal contexts of Germany in order to further study the effect of integration across multiple generations on the secondary-school tracking of migrant-origin youth. Previous models of this process have been based in the U.S. context (Gordon 1964), and the direct application of these U.S.-centric models of the intergenerational integration process in the German context is likely problematic. This necessitates the contextualized reformulation of the integration process utilized in this chapter.

Finally, research investigating the association between integration and secondary-school tracking in Germany needs to account for the national-origin status of those children being tracked, particularly when focusing on migrant-origin groups present in Germany primarily as a result of historical labor recruitment. The similarities between these groups in the timing of, and reasons for, migration allow for a similar conceptual model of integration for both groups. However, differences in the historical context of reception (Göktürk et al. 2007), current exposure to discrimination (Schunck et al. 2015), and structural barriers to immigration (Toader and Florea 2012) may result in heterogeneous effects of parent and child integration on the school tracking of children from different national-origin groups. Thus, integration may lead to different associations with secondary-school tracking between those of Turkish origin and those of Southern-European origin.

This current study will utilize a diverse, nationally representative sample of ninth-grade students in Germany to investigate, 1) the extent to which different measures of migrant integration at both the parent- and child-level mediate ethnic disparities in secondary-school tracking between ethnic Germans and those of migrant origin, 2) the intergenerational pathway through which multiple upstream and downstream integration factors are associated with the secondary-school tracking of migrant-origin children, and 3) how the associations between parent- and child-level measures of integration and secondary-school tracking differ between those of Turkish origin and those of Southern-European origin.

Background

Secondary-School Tracking in Germany

The importance of educational attainment in determining later-life social and economic outcomes is undeniable, for both natives and those of migrant origin. True in Germany as it is in all developed nations, the educational attainment of a child is strongly associated with their socioeconomic attainment later in the life course, including their labor market outcomes (Allmendinger 1989), their earnings (Brunello and Comi 2004), and the educational attainment of their own children (Heineck and Riphahn 2007). Within the German context however, the relationship between educational attainment and life-course socioeconomic status attainment is stronger than in most other Western developed nations due to the structure of Germany's secondary-schooling system (Allmendinger 1989; Powell and Solga 2011). After only four years of non-structured primary education, students are tracked into three tiers of education at the start of the fifth grade, roughly at the age of 10. These three tiers are the *Hauptschule*, the *Realschule*, and the *Gymnasium*. The first, *Hauptschule*, represents a minimum requirement for education and only goes through the ninth-grade, when students are around 15 years old. *Realschule*, the middle-tier track, goes until grade ten, when students are around 16 years old. Both the *Hauptschule* and the *Realschule* are aimed at preparing German children to engage in an apprenticeship or other job-specific vocational training after graduation, with each track granting entry into different areas of work and expertise (Kristen and Granato 2007). The third track, the *Gymnasium*, is a college preparatory track that lasts substantially longer than the other two tracks, including studies up to the 13th grade when students are 19. This type of education ends in the *Abitur* certificate, a final grade that allows for the entry of students into Germany's university system. Due to the strict requirement that a student receives an Abitur to attend university, college degrees are limited to those that were selected into the *Gymnasium* at the conclusion of the fourth grade. Once a track has been decided, there is very little movement of students between school types (Baethge et al. 2007). While efforts have been made in the last several decades to reform the German schooling system, these reforms have mainly targeted the two lower-tier tracks, and the *Gymnasium* is still the most prestigious form of secondary schooling in all German states (Becker et al. 2016).

In addition to the strength with which the German educational system can influence socioeconomic mobility across an individual life course, it is also exceptional in its ability to reproduce class inequality *across* generations when compared to other countries (Breen and Jonsson 2005; Maaz et al. 2008; Vleminckx and Smeeding 2001). This intergenerational reproduction of educational attainment is primarily the result of two key actors; teachers and parents (Dumont et al. 2019). At the conclusion of primary education, teachers are required to create recommendations regarding the best secondary-school type for each child. While these recommendations are supposedly based on grades and other markers of academic achievement, social biases pertaining to the child's socioeconomic status and ethnicity are known to influence teachers as they are making these recommendations (Glock et al. 2013; Pietsch and Stubbe 2007). In addition to teachers, in a majority of German states, parents have at least some, if not total, agency in deciding the secondary school track their children are placed in (Sekretariate der Kultusministerkonferenz 2015). Historically, teacher recommendations were more binding in determining school tracking, however education reforms in recent decades have allowed for greater input from parents during this educational transition (Becker at al. 2016). As parents are often making these decisions based on their own understanding of, and experience with, the German schooling system, they are more likely to endorse the form of secondary schooling they themselves went through, reinforcing the intergenerational transmission of educational attainment (Hillmert and Jacob 2010).

For both teachers and parents, larger societal understandings of what constitutes "successful" education can also influence the decision-making process and help to recreate educational disparities across generations. Education focused on vocational training is still valued in Germany, in contrast to other developed nations such as the United States, where vocational training is seen as a lesser educational path compared to university study. This general acceptance of vocational training reduces the understood value of a university degree in German society, thus making it more socially acceptable to enter into lower-tier educational tracks aimed at vocational training after secondary school (Powell and Solga 2011). Despite efforts by the German government to increase intergenerational educational mobility in the last several decades, rates of entry into the highest tier of German secondary schooling

have not increased for children from lower-class and working-class backgrounds over this time (Heineck and Riphahn 2007).

Determinants of Migrant-Origin Secondary-School Tracking

In Germany, non-German groups are highly underrepresented in the *Gymnasium* (de Paiva Lareiro 2019). Overall, migrant-origin children have rates of entry into the *Gymnasium* that are seven percentage points lower than native Germans (de Paiva Lareiro 2019), though for some groups these disparities are much greater. While roughly 33 percent of native-German children enter the *Gymnasium*, only 12.5 percent of Turkish-origin children are placed into this educational track (Fernandez-Kelly 2012). Of those ethnically from Southern Europe, around 25 percent go to the *Gymnasium* (Fernandez-Kelly 2012). These disparities in entry into the *Gymnasium* have led to lower rates of *Abitur* attainment and, due to the requirement that one obtain an *Abitur* to enter tertiary education in Germany, lower rates of university education among those of migrant origin (Algan et al. 2010; Kristen and Granato 2007; Wilmes et al. 2011). While most migrant-receiving states exhibit educational disparities between natives and those of migrant origin, nations with educational systems that both track students early and physically separate students into different schools based on their track placement are those that produce the greatest educational inequality (Alba and Foner 2015). Unfortunately for migrant-origin children in Germany, this perfectly characterizes the structure of the German educational system, and this tracking structure has directly contributed to the educational disparities present in Germany today (Alba and Foner 2015; Auernheimer 2005; Ferdendez-Kelly 2012; Krause et al. 2014).

Research aimed at understanding why migrant-origin children attain lower rates of entry into the highest tiers of German secondary schooling has yielded several possible, interrelated mechanisms. It has been argued that ethnic disparities in socioeconomic status between those of migrant origin and native Germans have simply translated into ethnic disparities in educational attainment through the “normal” intergenerational transmission of socioeconomic status produced by Germany’s schooling system that impacts *all* children (Bönke and Neidhöfer 2014; Krause et al. 2014). However, the extent to which

disparities in secondary-school tracking between ethnic groups can be fully explained by socioeconomic inequality is not clear. Research on the role of family socioeconomic background in determining migrant-origin educational outcomes has resulted in mixed findings, with some researchers finding that measures of parents' occupation and education are enough to explain secondary school-tracking disparities between migrant-origin children and their native-German counterparts (Bönke and Neidhöfer 2014; Krause et al. 2014), while others have found that significant differences remain even after accounting for these measures (Kristen and Granato 2007). Research in this vein has also found that the extent to which school-tracking disparities can be explained by socioeconomic status differs between different migrant-origin groups (Kristen and Granato 2007).

Outside of socioeconomic considerations, the German-specific cultural competencies of a migrant-origin family, or their ability to "do belonging" in the German society (Skrbis et al. 2007), has been argued to determine school-tracking outcomes. Often, the parents of migrant-origin children are not knowledgeable of the educational system in their receiving nation and thus unaware of the schooling options available for their children (Alba et al. 2011; Kristen 2008). Research has found that general knowledge about the secondary-schooling system is low among immigrant parents in Germany (Kretschmer 2019). In addition, these parents may experience difficulties in speaking the German language, which could inhibit communication between them and their child's school (Alba et al. 2011). In the transition between primary school and secondary school, a process in which parents have at least some agency in ultimately deciding the secondary school track of their child (Dumont et al. 2019; Hillmert and Jacob 2010), these knowledge gaps and language barriers inhibit parents from intervening effectively on their child's behalf. In contrast to studies that have argued that family socioeconomic status is the primary determinant of secondary-school tracking disparities, some researchers have found that differences in parental language ability are the most important factor in determining educational gaps between native and migrant-origin children (Dustmann et al. 2012; Schüller 2012).

Naturalization, one of the most dramatic forms of integration in the German context, may also play a role in child school-tracking disparities. Germany's primarily ethnicity-based *jus sanguinis*

citizenship laws make it difficult for non-German residents to attain citizenship, even those who were born on German soil. While schooling is compulsory for all children in Germany, regardless of both parental and child citizenship (Teltemann and Rauch 2018), naturalization has been hypothesized to positively impact the educational attainment of migrant-origin children (von Haaren-Giebel 2016; Sauer and Felfe 2014). Utilizing a natural experiment caused by a change in German citizenship law, the result of which allowed for a limited extension of citizenship acquisition on the basis of *jus soli*, Sauer and Felfe (2014) found that rates of *Gymnasium* entry increased for migrant-origin children living in Germany after the implementation of this law. Sauer and Felfe hypothesized that parents with citizen children are more likely to invest German-specific human and cultural capital into their children, leading to better academic outcomes in primary school and a higher rate of entry into the *Gymnasium* as a result. Investigating the effect of *parent* citizenship on child secondary-school tracking outcomes in Germany, von Haaren-Giebel (2016), found that naturalized parents were more likely to have children in the *Gymnasium* than migrant-origin parents who were not naturalized. Von Haaren-Giebel argues that this effect is the result of selection, in that parents who naturalize are positively selected based on their levels of German-specific human and cultural capital, and thus their own German-citizen children gain greater German cultural competency and subsequent educational advancement.

While these studies present arguments for the beneficial role of parent and child citizenship acquisition in the educational attainment of migrant-origin children, further research is needed in this area. In many cases, data limitations have necessitated that researchers use citizenship status as a proxy for ethnicity in the study of migrant-origin populations in Germany, making it impossible to look specifically at the effect of citizenship on the social and behavioral outcomes of migrant-origin children. Though many German residents with migration backgrounds do retain the citizenship of their family's sending nation (due to Germany's strict citizenship laws), migrant-origin children with German citizenship would not be included in studies utilizing samples in which citizenship status was used as a proxy for respondent ethnicity. This is an issue that has prompted calls for further investigation using

better data (Kristen 2008). By measuring national origin as a function of migration history, and not citizenship status, this study addresses these limitations.

Finally, structural ethnic discrimination in the German educational system may impact rates of *Gymnasium* entry for migrant-origin children, even after accounting for integration factors. Classification systems used by the German schooling system disproportionately list these students as "weak" (Söhn and Özcan 2006), and, at least for Turkish students, experimental studies have found that teachers will give lower grades and lower recommendations to student with Turkish names than students with German names, even when presented with the same quality of work from each student (Sprietsma 2011). Additional research has found that lower grades and teacher recommendations are not necessarily reflective of actual test scores or academic ability among those of migrant origin (Lüdemann and Schwerdt 2012), and for some national-origin groups, grades alone are not enough to explain the higher rates of teacher recommendations for the lowest tier of secondary schooling (Kristen 2002). Whether these racial biases are explicit or implicit, they ensure that teacher recommendations are not entirely a function of primary-school performance and call into question their "meritocratic" nature (Pietsch and Stubbe 2007). Ultimately, the role of discrimination in the tracking of migrant-origin students, particularly those of Turkish and Southern-European ethnicity, is a topic of much debate (Söhn and Özcan 2006). Further research that analyzes potential discriminatory school-tracking outcomes after accounting for multiple forms of parent- and child-level measures of integration is needed.

For this chapter of the dissertation, the first set of research questions is as follows:

Q1a: To what extent do measures of family-level integration mediate the association between national origin and secondary-school tracking?

Q1b: Does the extent to which these integration factors mediate the association between national origin and secondary-school tracking differ between those of Turkish origin and those of Southern-European origin?

The Intergenerational Process of Integration

While the integration factors described above have all been shown to influence the secondary-school tracking of migrant-origin children, these measures of integration cannot be understood as isolated factors. In fact, these measures of integration are highly correlated, interacting with each other throughout the life course and across generations to create a profile of incorporation into the national-majority society that can dictate the economic, social, and well-being outcomes of individuals within a given migrant-origin group. The study of group-level disparities between migrant-origin and native populations requires an understanding both of the practical mechanisms through which individual measures of integration are associated with disparities in a given social outcome, as well as an understanding of the process through which these individual measures of integration interact across generations to ultimately determine the measure of integration being studied. For the current study, it is necessary to understand how socioeconomic status, language use, and citizenship interact across parent and child generations to influence the school tracking outcomes of those migrant-origin children who are currently part of the German schooling system.

Since the inception of sociology as a discipline, migration scholars have sought to understand how migrant groups integrate into majority societies (Alba and Nee 2003; Park and Burgess 1921). One of the most influential studies on the social phenomenon of migrant integration has been *Assimilation in American Life: The Role of Race, Religion, and National Origin* by Milton Gordon (1964). Gordon's study advanced a multi-stage theory of integration in which he argued that incorporation of migrant-origin groups into the native society occurs not during one life course, but across generations. Using the term "assimilation", he posited that migrants and their children (that latter of whom are born in the receiving nation) begin the assimilation process with the experience of "acculturation", defined as the stage of assimilation in which members of a migrant-origin groups begin to adopt the cultural and behavioral norms of the majority society (Gordon 1964, p.79). The ability to fluently speak the language of the receiving nation is described by Gordon as an example of this form of assimilation. It is only after this initial stage of acculturation that more downstream forms of assimilation, such as parity in the labor force,

proportionate representation in government, or intermarriage can occur. Ultimately, Gordon's theory of assimilation argues that full assimilation occurs when migrant-origin groups have completely shed their "ethnic" traits and have fully integrated into the majority society. While more recent arguments have questioned the idea that full cultural and behavioral assimilation is necessary for other forms of integration to occur (Alba and Nee 2003), Gordon's theory of assimilation is noteworthy for advancing the idea that migrant-group integration is a multi-stage process, in which different forms of integration occur sequentially and across generations (Kalter and Granato 2002). In the German context, there has been a large body of research investigating how the focal integration variables of the current study are associated across the life course and across generations, and from this research, a general model of intergenerational integration can be conceptualized. This model is also informed by aspects of German integration and naturalization law that would legally influence the intergenerational integration process.

Receiving-nation language use is one form of upstream integration that has implications for overall integration. The ability to speak and understand the German language is associated with increased economic mobility for migrant populations in Germany, both within a single life course and across subsequent generations. Research has found that increased German language proficiency is associated with higher job prestige across all migrant generations, and that increased language proficiency in the second generation is a primary factor for intergenerational economic mobility (Euwals et al. 2007). Additional research has found that migrants who have taken government-funded German language courses have a higher probability of employment than those that have not (Kosyakova and Sirries 2017). In addition to the direct, positive impact parent German-language ability has on the secondary schooling outcomes of migrant-origin children, increased parental occupational mobility that results from better command of the German language may indirectly impact this measure of child educational attainment, as secondary-school tracking is strongly influenced by parental socioeconomic status (Breen and Jonsson 2005; Maaz et al. 2008; Vleminckx and Smeeding 2001).

The acquisition of receiving-nation citizenship, whether through naturalization or inheritance from a citizen-parent, is another form of integration that acts along the multi-stage, intergenerational

processes of integration (Ersanilli and Koopmans 2010). However, the placement of citizenship acquisition into the broader process of intergenerational integration needs to be further studied in the German context. In Germany, complex citizenship laws that designate nationality as a function of lineage and not birthplace mean that citizenship acquisition is not a "natural" event that occurs over migrant generations, as it is in the United States. Rather, German citizenship law confers a high level of agency and onus on non-German nationals to naturalize and become German citizens, even if they were born in Germany. Germany's naturalization laws requires that these individuals have resided in Germany for eight years, are able to live without public assistance, have committed no legal offenses, and "posses[] an adequate knowledge of [the German language] and … the legal system, society and living conditions of Germany (Section 10)" as determined by a citizenship test gauging their language ability and civic "values" (Kaya and Kayaoglu 2012). These legal requirements for naturalization signify a high level of integration to be necessary before citizenship can be granted to those of non-German ethnicity, implying that citizenship acquisition is likely a form of integration that is more downstream in the process of intergenerational family integration.

Research has generally shown that naturalization is associated with better labor market outcomes, though evidence is mixed. Some have found receiving nation citizenship to improve labor market outcomes, including occupational prestige (Euwals et al 2010), wages (Gathmann and Keller 2014), being in employment generally (Kaya and Kayaoglu 2012; Riphahn and Saif 2017), and not needing public assistance (Riphahn and Saif 2017). However, these studies have found variation in these effects by migrant group (Steinhardt 2012), gender (Gathman and Keller 2014; Riphahn and Saif 2017), and generation of migration (Gathman and Keller 2014). Additionally, Riphahn and Saif argue that the positive effect of naturalization on labor market outcomes is largely the effect of certain migrants selecting into German citizenship, particularly those who have already experienced a high amount of integration. Indeed, those that naturalize are known to exhibit higher levels of German cultural and social integration (Ersanilli and Koopmans 2010). For the second generation, the effect of having citizenship on socioeconomic outcomes is also mixed. Luthra (2010) found that the effect of German citizenship on

labor market outcomes for German-born migrant-origin individuals, while present, was mostly explained by increased levels of human and cultural capital within these non-German individuals. The indirect effect that parent citizenship can have on child school tracking outcomes is thus up for debate.

As multiple upstream forms of integration occur within migrant families across generations, and as these forms of integration interact in order to influence subsequent downstream forms of integration, each can have an impact on the schooling outcomes of the youngest migrant-origin cohorts. Understanding the interaction of these forms of integration across generations is necessary in order to understand the factors that determine secondary-school tracking in the German schooling system. **Figure 2.1** shows the conceptual model of intergenerational integration. The second set of research questions for this chapter of the dissertation is as follows:

Q2a: How are measures of parent and child integration directly associated with secondary-school tracking among migrant-origin children in Germany?

Q2b: How are the effects of more upstream variables of integration on the school tracking of children mediated by more downstream measures of parent and child integration?

Q3c: How do the direct and indirect effects of intergenerational family integration on school tracking differ between those of Turkish origin and those of Southern-European origin?

Data and Methods

Data

Data for this project come from Wave 1 of the German sample of the Children of Immigrants Longitudinal Study in Four European Countries (CILS4EU-DE) (Kalter et al. 2016). CILS4EU-DE is a nationally-representative sample of 14-year-olds in Germany collected in the 2010/2011 school year. Surveys taken by the adolescent respondents were designed to yield information for the study of migrant-origin children in the German context. As a result, this study contains many survey items pertaining to the migrant experience, and the sample itself contains a large oversample of children with migrant

backgrounds. Parent surveys were also conducted that include information on the socioeconomic background of the family and additional family-level information not asked to the child respondents.

For the analytic sample, several sample restrictions are made. First, all those respondents who do not have national origins from either Germany or one of the focal sending nations are excluded from the sample (n=1,902). Next, respondents who report moving to Germany after the age of nine are excluded, as these children would not have resided in Germany during the transition period between primary and secondary school (n=34). Next, all respondents who are enrolled in a special-education school are excluded (n=61). Finally, all respondents missing values for any self-reported independent variable are excluded (n=88, 2.9 percent of the sample).

In order to account for the high level of missingness on the parent survey, which included many of the key independent variables of the study, multiple imputation is utilized using Stata's multiple imputation (MI) suite (StataCorp 2019). For some parent-supplied variables, information is drawn from the child survey, as the child respondents were asked several questions pertaining to their parents. However, in some cases, item response options differed between the parent and child survey for the same items. Additionally, in some German states, the CILS4EU-DE data collection team was not allowed to ask child respondents to supply information about third parties (here, their parents). After integrating child-reported data to supplement missingness on the parent-supplied data, 24.3 percent of the sample was still missing at least one independent parent variable (n=711). In order to account for this remaining missingness, imputation using chained equations is utilized to impute the missing values that remained for the necessary parent-supplied variables. A descriptive table of the imputations can be found in the **Appendix A**. The final sample size was 2,930.

Variables

Gymnasium: The type of school each student attended was recorded in the CILS4EU-DE dataset. Because the focus of the paper is placement into the highest track, *Gymnasium* is a dummy variable that indicates current enrollment in this school type, as opposed to all other school types.

National origin: National origin is coded into three categories, “Native German”, “Turkish”, and “Southern European”. The latter group consists of those ethnically from Italy, Greece, Spain, and Portugal. The national origin of the respondents was supplied by the CILS4EU-DE research team. National-origin information for each respondent was deduced using information from both the child and parent survey, in which both generations were asked about their family’s migration history. Further information on how these migration histories are used in the construction of the national origin variables can be found in Dollmann et al. (2014).

Parental education: Parental Education is coded as “No Secondary Education”, “Lower-Secondary Education”, “Upper-Secondary Education”, and “University Education”. Within this classification system, “Lower Secondary” refers to the secondary educational tracks of the *Hauptschule* or the *Realschule*, while “Upper Secondary” refers to the secondary educational track of the *Gymnasium*. Parents who received their education outside of Germany were asked to report the education level most equivalent given their origin nation’s schooling system. For respondents missing parent-supplied educational attainment information, child-supplied information regarding parental education is used. Parental education information was collected for both mothers and fathers, and in two-parent households, the higher educational attainment of the two parents is used.

Parental occupational prestige: Parental Occupational Prestige is measured by the 2008 International Standard Classification of Occupations (ISCO-08) coding system, which ranks occupations by prestige on a continuous scale from 0-100. For respondents missing parent-supplied occupational information, child-supplied information regarding parental occupation is used. Occupational information was collected for both mothers and fathers, and in two-parent households, the higher occupational prestige of the two parents is used.

Household German-language use: Household German-language use was reported by the child respondent. During the survey, child respondents were asked if they ever used a non-German language when speaking to their family. If respondents reported the use of a second language, they were followed up with the question of how frequently they used this language to speak to their family. Responses to this

question are re-coded on a three-point Likert scale that represents the frequency of German-language use in the household; “never”, “sometimes”, and “always”. Those who reported no non-German-language use in the household were included in the “never” category.

Parent educated in Germany: To indicate whether the parents of the respondents had personal experience with the German schooling system, parents were asked if their highest form of schooling was completed in Germany or in another country. If either parent reported having completed their highest level of education in Germany, they are coded as such, with one exception; those who reported they completed their highest level of schooling in Germany but reported that they had migrated to Germany after the age of 17. This is done to ensure that those parents who had come to Germany for a university education are not included, as they would have had no personal experience with the secondary-schooling system in Germany.

Child citizenship status: Child respondents were asked about their current citizenship status. Responses are dichotomously recoded to indicate whether or not the child had German citizenship. Children with both German and non-German citizenships were coded into the same category as those with only German citizenship.

Parent citizenship status: Parent respondents were also asked about their citizenship status, as well as the citizenship status of their partner. If either parent of a child respondent had German citizenship, or dual citizenship in which one was German, they are coded as having a parent with German citizenship.

Generational status: Generational status of the child respondent is recorded as a four-category variable. The “First Generation” category includes those respondents who were born outside of Germany, the “Second Generation” category includes those who were born in Germany to parents who were both born outside of Germany, the “2.5 generation” includes those respondents who had one German-born parent and one foreign-born parent, and the “Third+ Generation” category includes those who had two German-born parents.

Female: A final dummy variable indicates whether the child respondent is female or not.

Table 2.1 shows the weighted descriptive statistics for the variables used in the analysis within each national-origin group. For Turkish and Southern-European children, difference-in-means tests were done to indicate mean values that are significantly different from the native-German group. For both migrant-origin groups, rates of entry into the *Gymnasium* are lower than the native Germans, with 20 percent of Turkish children and 18 percent of Southern-European children currently enrolled in the highest secondary-school track, compared with 33 percent for reference group. Compared to native Germans, Turkish children are more likely to have parents in the two lowest education levels (no secondary education and lower-secondary education) and less likely to have parents in the two highest education levels (upper-secondary education and university degree). While Southern-European children are more likely to have parents without any secondary degree, rates of parental education in the other tiers of education are the same as those of the native Germans. For both non-German groups, parental occupational prestige is lower than the native Germans. Unsurprisingly, the two migrant-origin groups are also different from the native Germans on measures of household language use, parental education in Germany, citizenship status, and generational status.

Analytic Strategy

Average Marginal Effects: First, in order to investigate the mediating role of the focal integration variables in the relationship between national origin and school tracking, with the ultimate goal of understanding if, and to what extent, these factors mediate the association between national origin and secondary-school tracking disparities, nested probit regression models are utilized. These models are run in Stata 16 (StataCorp 2019). In all models, the dichotomous indicator of current enrollment in a *Gymnasium* is used as the dependent variable. In Model 1, current *Gymnasium* enrollment is regressed on national origin. In Models 2-4, measures of parent education and occupational prestige, knowledge of the German language and experience with the German schooling system, and parental and child citizenship status are individually included in the models respectively. Model 5 includes all integration measures together in order to analyze the mediating power of each variable net of the other focal covariates. The

final model, Model 6, includes all focal independent variables, as well as the generational status of the child. Generational status is an important proxy for overall family integration and likely taps into aspects of integration that are not fully measured by the focal integration variables of the current study. All models include appropriate sampling weights, stratification adjustments, and cluster robust standard errors to account for the complex survey design of the CILS4EU-DE dataset. Additionally, all models control for the gender of the child.

Due to the dichotomous nature of the dependent variable (current enrollment in a *Gymnasium*) and the resulting need to use a binary response model (here; probit regression), additional steps need to be taken to allow for the comparison of coefficients between nested models to assess mediation (Mood 2010). As is the case in traditional linear regression (such as OLS), omission of variables correlated with both the independent variables and the dependent variable of a binary response model will bias the coefficient estimates, as it allows for the independent variables included in the model to explain variation in the dependent variable that is actually a function of the covariations that exist between these included independent variables and those that have been omitted. This problem is known as Omitted Variable Bias (Clarke 2005). However, in contrast to linear regression models, coefficient estimates in binary response models are also biased by the omission of variables that are correlated with the dependent variable and *uncorrelated* with the independent variables included in the model. This "neglected heterogeneity problem" (Wooldridge 2010) is ultimately the result of how the residual variance of the error term is fixed in a binary response model and the way that the estimated coefficients are standardized as a function of this residual variance (Mood 2010). Within a binary response model, the total variance of the latent variable assumed to be underlying the observed binary dependent variable, y^*, consists of both observed and unobserved heterogeneity. In these models, the unobserved variance is fixed, which in turn means that changes to the model that increase the amount of explained heterogeneity in y^* also increase the total variance of y^*. Thus, the scale on which the coefficients are based changes when subsequent models incorporate additional independent variables, and these estimates are not comparable across models. Because of this change to the underlying variance that downwardly biases coefficient estimates in models

with fewer independent variables, *even when these independent variables are uncorrelated with each other* (Mood 2010), the standard process of assessing mediation often used in OLS, where the variance of *y* is known, does not work in binary response models.

In order to account for this inherent limitation of binary response models, the current study presents regression results as Average Marginal Effects (AME). Instead of focusing on how independent variables in a binary response model are associated with the continuous, latent dependent variable of *y**, AMEs instead represent the change in the probability that observed dependent variable *y* equals "1" (P(*y*=1)) given independent variable *x* (Mood 2010). Looking at binary regression coefficients in terms of probability change has been argued to be a more interpretable way to understand these effect estimates (Angrist 2001). AMEs are calculated by the following equation:

$$\frac{1}{n}\sum_{i=1}^{n}\beta_x f(\beta x_i)$$

where β_{x1} is the estimated coefficient of independent variable *x* in the binary response model, $f(\beta x_i)$ is the probability distribution function of the estimated beta coefficient (as defined by the equation $\frac{e^{(\beta x_i)}}{[1+e^{(\beta x_i)}]^2}$) multiplied by the observed value of *x* for respondent *i* (Mood 2010). $\beta_x f(\beta x_i)$ is then averaged across all respondents (or all *i*'s) to create a value that roughly approximates the change in the probability that dependent variable *y* equals 1, given a unit change in independent variable *x* (Petersen 1985). Most importantly however, AMEs are not biased by the neglected heterogeneity problem described above. The average change in the probability that *y* equals 1 given a unit increase in independent variable *x* is the same whether or not additional variables correlated with *y* are included in the model, assuming these additional variables are uncorrelated with *x* (Mood 2010, Wooldridge 2010). For this reason, changes in the AME of an independent variable between nested models can be interpreted as changes in the effect due to the mediating or confounding nature of variables included in subsequent models, which allows for the analysis of mediation in a similar manner as would be done with a linear regression model.

Path Analysis: For the second set of analyses, path analysis is utilized. Path analysis has long been utilized to study complex social processes (Duncan 1966) and has been shown to be particularly apt at modeling the complex, intergenerational process of secondary-school tracking in Germany (Dumont et al. 2019). While the probit regression models used in this study analyze the factors that contribute to disparities in *Gymnasium* entry between native Germans and children with migration backgrounds, these path analysis models investigate the intergenerational process of integration that can determine secondary-school tracking within migrant-origin groups. These models more fully analyze the direct and indirect effects of multiple upstream and downstream measures of family integration on child secondary-school tracking. Additionally, these models are run separately for those of Turkish origin and those of Southern-European origin, allowing for the analysis of how direct and indirect effects differ between these groups.

Path analyses are run in MPlus version 8.3 (Muthén and Muthén 2019) and account for the complex sampling procedure of the CILS4EU-DE dataset. For these analyses, parental education and household German-language use are collapsed into dichotomous variables, in which respondents with upper-secondary or university educated parents are coded as 1 (vs. 0 for the respondents with other-educated parents) and in which those who live in households in which German is "always" or "sometimes" spoken are coded as 1 (vs. 0 for those who lived in households where German was "never" spoken). Thus, all paths to continuous variables are linear coefficients and all paths to dichotomous variables are linear probability coefficients. The use of linear probability coefficients in the path diagram instead of logistic or probit coefficients eliminates the "neglected heterogeneity problem" discussed above. Additionally, linear probability coefficients are, in most cases, almost identical to average marginal effects (Mood 2010).

To more fully investigate the influence of intergenerational measures of integration on child secondary-school tracking, results from the path analyses are further decomposed to analyze the indirect effects presented in the hypothesized conceptual model shown in **Figure 2.1**. Significant indirect effects are determined using bootstrapped confidence intervals obtained through 1,000 replications. Use of

bootstrapping to determine the confidence intervals of indirect effect estimates has several advantages over other tests of indirect effect significance, particularly when sample sizes are small or when the effects are not being standardized (Bollen and Stine 1990; Fritz et al. 2012). Because the directions of the indirect effects are not hypothesized, significance is determined using a two-tailed t-test, with the upper- and lower-bounds of 97.5 percent at 2.5 percent respectively.

Results

Table 2.2 reports the results of the nested probit regression models that test the potential mediating role of the focal integration factors in the relationship between ethnicity and secondary-school tracking. Because the effects shown below are AME's, the results can be approximately interpreted as the percentage-point difference in the probability that the dependent variable equals 1 compared to the reference group. In Model 1, results show that both Turkish and Southern-European children have a lower probability of being currently enrolled in a *Gymnasium* compared to the native-German reference group (13.7 and 15.3 percentage points less respectively). This initial analysis mirrors the descriptive statistics above, and official statistics on educational inequality collected by the German government.

In Model 2, the family socioeconomic factors of parental education and parental occupational prestige are included as covariates. Having a parent with an upper-secondary or university education is associated with an increased probability of *Gymnasium* enrollment compared to the "no secondary education" reference group. This positive association is also found for parental occupational prestige. Interestingly, having a parent with a lower-secondary education is not associated with an increased probability of *Gymnasium* enrollment, an association that is applicable for the entire sample. This finding highlights the strong intergenerational transmission of education that exists for both migrant-origin groups and native Germans. Inclusion of parental socioeconomic status fully explains the negative association of Turkish ethnicity in Model 1, however the negative association for Southern-European children, while attenuated, is still present.

In Model 3, the socioeconomic variables are removed and household German-language use and parental experience with the German school system are included. In this model, children who report always using the German language at home have a probability of being currently enrolled in a *Gymnasium* that is 16.3 percentage points higher than children that report always using a non-German language with their parents. Again, as in Model 2, inclusion of these covariates fully explains the lower rates of *Gymnasium* enrollment for Turkish children, but not for those of Southern-European ethnicity.

In Model 4, the integration covariates of the previous model are removed and parental citizenship and child citizenship are included in the model. Child citizenship has a large effect on the probability of *Gymnasium* enrollment, with German-citizen children having a probability 21.6 percentage points higher than those with non-German citizenship. This covariate is again able to fully explain the effect of Turkish ethnicity, but not Southern-European ethnicity.

In Model 5, all focal integration covariates are included into the model. Within this model, the association between household language use and child school tracking is lost, indicating that the integration factors of parental socioeconomic status and citizenship explain the association found in Model 3. Additionally, there is a negative association between parental citizenship and child secondary-school tracking probabilities in this model, suggesting that when controlling for the other integration factors in this model, having a parent with German citizenship is associated with a lower probability of being in the highest tier of the German secondary schooling system. As in all previous models, the negative association between Southern-European ethnicity and *Gymnasium* enrollment is not fully accounted for, indicating that even collectively these intergenerational integration factors are not able to fully mediate the association between ethnicity and secondary-school tracking for this national-origin group.

In the final model, Model 6, the variable of generational status is included. Here, children who are at least in the third generation since immigration, defined by having both parents born in Germany, have a probability of *Gymnasium* enrollment 18 percentage points higher than children of any other generational status. Ultimately, the inclusion of this variable is able to explain the negative association between

Southern-European ethnicity and school tracking. When controlling for all focal integration variables *and* generational status, children of both Turkish or Southern-European family origin have equal probabilities of being enrolled in a *Gymnasium*.

In addition to the probit regression models, path analysis was conducted in order to estimate the direct and indirect effects of these intergenerational integration factors on the probability of *Gymnasium* entry among migrant-origin children in Germany. In contrast the models above, these path analyses report the direct and indirect effects of these integration measures on the probability of *Gymnasium* enrollment within national-origin groups, not the extent to which these integration factors explain disparities in *Gymnasium* enrollment.

Table 2.3 shows the correlation matrix of the variables for the Turkish sample. For this group, all correlations are positive and significant at the .05-level except for the correlation between *Gymnasium* enrollment and parent citizenship, which is not significant. **Table 2.4** shows the goodness-of-fit statistics for the path analysis model. The chi-squared test statistic has a significant p-value at the .05-level, though not at the .01-level. The RMSEA value is less than .05 and the value of both the CFI and TLI are above .9, with the CFI being almost .97. Taken together, these fit statistics indicate a good model fit. **Figure 2.2** shows the results of the path analysis for the Turkish-origin children. Of the six hypothesized direct effects, four are found, with parent education, parent occupational prestige, parent German citizenship, and child German citizenship all being directly associated with the probability that a Turkish-origin child is currently enrolled in a *Gymnasium*. All direct effects are positive except for parent German citizenship.

Table 2.5 lists all of the significant indirect effects of the integration variables on the probability of *Gymnasium* enrollment for the Turkish-origin path analysis. While the direct effects seen between the integration variables of the path analysis indicate that there are associations between upstream and downstream forms of integration, as would be suggested by Gordon's theory of assimilation, the analysis of indirect effects describes how the association between more upstream variables of integration and child school tracking are mediated by intervening downstream variables. First, while there are no direct effects of generational status on the probability of *Gymnasium* enrollment, generational status indirectly

influences secondary-school tracking through several mediated paths. Interestingly, some of these mediating effects are positive while some are negative, indicating that the indirect effects of this most upstream measure of integration can both positively and negatively influence school tracking, depending on how this variable is mediated by intervening measures of integration. Parental education, which has a positive direct effect on the probability of *Gymnasium* enrollment, is also positively mediated through parent occupational prestige. As is the case for generational status, household German-language use is not directly associated with probability of *Gymnasium* enrollment. However, household German-language use is indirectly associated with child school tracking through parent German citizenship and the path between parent German citizenship and child German citizenship. It appears that the effect of language use on child school tracking is completely mediated by measures of family citizenship. Finally, the negative direct effect of parent German citizenship on the probability of child *Gymnasium* enrollment is positively mediated by both child German citizenship and parent occupational prestige.

Results for the second path analysis using the Southern-European sample are found below. **Table 2.6** shows the correlations that exist between the variables for this group of migrant-origin children. Here, all correlation coefficients are positive and significant except for the correlations between generational status and both *Gymnasium* enrollment and parent education. Model goodness-of-fit statistics for the Southern-European path analysis can be found in **Table 2.7**. These fit statistics indicate a well-fitting model, with a non-significant chi-squared statistic, RMSEA below .05, and a CFI and TLI both well above .95. **Figure 2.3** presents this final path analysis. In contrast to the Turkish-origin group, none of the integration measures have a direct effect on the likelihood that a child of Southern-European origin is enrolled in the *Gymnasium*. Ultimately, this path analysis finds evidence for many of the intergenerational integration effects proposed in the conceptual model, all in the expected positive direction. However, increased levels of integration for more up-stream measures do not appear to translate into higher rates of *Gymnasium* entry for the current child cohort. Additionally, there are no significant indirect effects involving the probability of *Gymnasium* enrollment in this path analysis.

Discussion

After the end of the Second World War, Germany became a primary destination for labor migrants from Turkey and Southern Europe. While Germany eventually ended its active recruitment of foreign labor from these sending nations in the face of a slowing economy and increased anti-immigrant sentiment among the native-German population, in-migration continued in the form of family reunification. As a result, the number of migrant-origin families in Germany skyrocketed through the end of the 20th century. Today, transnational social networks and the labor and residency laws of the EU continue to facilitate migration from these countries into Germany. However, despite the long history of migration and settlement of Turks and Southern Europeans in Germany, socioeconomic disparities between members of these migrant-origin groups and the native-German population remain. Secondary-school tracking is one component of socioeconomic status in which ethnic disparities are large, with further research needed to better understand the mechanisms through which this disparity persists.

The ultimate goal of this study was to further investigate the factors of migrant integration that predict secondary-school tracking among current Turkish and Southern-European migrant-origin children in Germany. The first set of analyses utilized a probit regression model in order to analyze the role that family socioeconomic status, knowledge of the German language and schooling system, and citizenship acquisition among both parents and children play in mediating national-origin differences in secondary-school tracking between natives and those of migrant origin. By presenting results as Average Marginal Effects, it was possible to account for the inherent limitations of testing mediation in non-linear binary response models. The second aim of the paper was to further explore the intergenerational pathways through which these measures of parental and child integration factors interact to predict the school-tracking outcomes of migrant-origin children in Germany. Using path analysis, it was possible to explore the intergenerational process through which parental socioeconomic status, family household German-language use, and parent and child naturalization are directly and indirectly associated with the secondary-school tracking of the current migrant-origin child cohort in Germany.

Results from the first set of analyses indicate that both those of Turkish and Southern-European origin experience a lower likelihood of being in the highest tier of the German secondary-schooling system relative to native Germans, and that these differences are mostly mediated by measures of integration into the German society. However, the integration factors that explain these disparities differ between the two migrant-origin groups. For Turkish children, disparities can be completely explained by accounting for any one of multiple socioeconomic or social integration factors. Disadvantages experienced by this group in economic mobility, lower rates of household German-language use, and citizenship acquisition (at least for the children themselves) are all associated with secondary-school tracking disparities. When accounting for all measures of integration simultaneously however, results indicate that parental education and occupational prestige are the primary determinants of secondary school-tracking disparities for this group. Thus, disparities in secondary-school tracking for this group appear to simply be mirroring general disparities in socioeconomic status between native Germans and those of Turkish origin. However, while family-level socioeconomic disparities appear to explain the gap in *Gymnasium* enrollment between native Germans and those of Turkish origin, that is not to say that the transition between primary and secondary school tracking is likely devoid of discrimination. Recent evidence has suggested that bias in teacher recommendations exhibits high levels of complexity and is often attributable to multiple social factors, both those pertaining to the teacher and the student (Wenz and Hoenig 2019). For this reason, more simplistic models of discrimination based on in-group/out-group understandings of ethnicity may not accurately reflect what is happening in German schools, and may be why measures of integration are able to explain away any direct effect due to ethnicity. Additionally, research has shown that ethnically discriminatory hiring practices in Germany negatively impact those of Turkish origin (Kaas and Manger 2011), indicating that ethnic discrimination may indirectly influence secondary-school tracking through the more upstream measure of parent occupational prestige.

For those of Southern-European ancestry, results contrast starkly with those of Turkish origin. For all models except the final model, disparities in school tracking are not explained by any of the parent or child integration measures. This is true when each integration measure was considered independently

(Models 2-4) or together (Model 5). The disparity in secondary-school tracking is only fully explained when accounting for generational status (Model 6). In this national-origin group, some aspect of the migrant experience associated with generational status, but not included in the models here, appears to explain school tracking disparities. Ultimately, this finding may be indicative of the lower barriers to entry experienced by Southern-European migrants compared to Turkish migrants. Because of the open borders that exist between the nations of Southern Europe and Germany and the legal right for any of these migrants to live and work in Germany without a visa or permit, migrants to Germany from these countries are likely the least selective in terms of education or skill. Indeed, research has found that migrants from Portugal were negatively selected to migrate to Germany, with those in the lowest tiers of socioeconomic status most likely to move to Germany between 1975 and 1990 (Bauer et al. 2002), a trend that would have continued, perhaps even to a greater extent, after the formation of the European Union. This negative selection into family migration may manifest in a lower likelihood of being enrolled in a *Gymnasium* relative to native Germans through a mechanism that is not explored here. Another possible explanation is that migrant parents from Southern-Europe are less invested in ensuring the educational mobility of their children within the German educational system, as they experience a relative ease in returning to their nations of origin. The finding that the educational gap for this migrant-origin group is explained by generational status, and that the third generation is more likely to be enrolled in the *Gymnasium* than any other generation, is perhaps due to third-generation Southern-Europeans being born to parents who were themselves both born in Germany. These parents are likely to consider themselves to be more closely associated with the German mainstream than parents who were born in Southern Europe and to place a greater emphasis on ensuring that their children receive the highest form of education (at least on par with the native-German reference group). For this reason, perhaps, it is only with the inclusion of generational status in the model that the gap in *Gymnasium* attendance between native Germans and those of Southern-European origin is fully mediated.

In the second set of analyses, path analysis was used to analyze the intergenerational integration process and the impact this process has on the probability of the youngest migrant generation being

enrolled in a gymnasium. In contrast to the probit regression models, which investigated how intergenerational integration factors mediate secondary-school tracking disparities *between* native Germans and those of migrant origin, these path analyses investigated the role of intergenerational integration in determining the probability that children are tracked into the *Gymnasium within* a given migrant-origin group. For the Turkish-origin analysis, probability of *Gymnasium* enrollment is directly affected by parent education, parent occupational prestige, parent German citizenship and child German citizenship. While most direct effects are positive, as anticipated, the direct effect of parent German citizenship on the probability of *Gymnasium* enrollment is negative. While this finding is unexpected, previous research may help to explain this result. In their study of naturalization and labor outcomes, Euwals et al. (2010) found that naturalization was negatively associated with tenured employment for both first- and second-generation Turkish migrants living in Germany. These researchers hypothesize that this may be a result of tenuously employed temporary workers being more likely to opt into citizenship than those on more secure tenured contracts, thus negatively selecting migrants to acquire German citizenship based on socioeconomic status. In the current path analysis, once accounting for all other measures of integration, this negative selection into German citizenship among Turkish-origin parents may explain the negative association between this integration variable and probability of child *Gymnasium* enrollment.

For the most upstream integration measure, generational status, results from the Turkish-origin path diagram indicate that parents in this migrant-origin group experience upward educational mobility, increased German-language use, and a higher rate of German citizenship acquisition as their generation of migration becomes more distant from initial migration. The direct effects of generational status on these integration variables are then translated into indirect effects on the probability of child *Gymnasium* enrollment which fully explain any direct effect of generational status. Findings from the indirect effects analysis of generational status are mixed however, particularly when the indirect effects of generational status are fully or partially mediated by parent German citizenship. The mixture of positive and negative indirect effects through parent German citizenship indicates a selection into citizenship that is not always

positively associated with generational status. Generational status also indirectly, positively influences school tracking through parent occupational prestige via parent education. This result indicates that later-generation Turkish families are able to achieve higher socioeconomic status than their co-ethnics of more recent migration, which is then translated into a higher probability of *Gymnasium* enrollment for their children.

In addition to the direct, positive effect of parent education and parent occupational prestige on the probability of *Gymnasium* enrollment for those of Turkish origin, parental education is itself positively mediated through parent occupational prestige. The finding that parent education and parent occupational prestige interact to positively influence a child's educational attainment is in line with the current body of literature on migrant-origin school tracking in Germany and traditional sociological theories of intergenerational socioeconomic mobility (Alexander et al. 1975; Blau and Duncan 1967; Haller and Portes 1973).

While a higher rate of household German-language use is not directly associated with child probability of *Gymnasium* enrollment for those of Turkish origin, it is positively associated with parent German citizenship. Given the German language requirements necessary to naturalize, this finding is expected. Analysis of the indirect effects further show that language use is indirectly, positively associated with child school-tracking though the mediator of parent German citizenship. However, a longer mediation path is found between language use and school tracking through *both* parent and child German citizenship which provides an overall negative indirect effect. Confounding the findings pertaining to parent German citizenship among those of Turkish origin, the association between the probability of *Gymnasium* enrollment and parent German citizenship itself has a positive indirect effect through the separate mediations of both child German citizenship and parent occupational prestige. The role of parent citizenship in influencing educational outcomes for children of Turkish origin appears to depend on how parent German citizenship influences the more downstream determinants of child educational outcomes. For all other measures of integration however, results generally support the understanding that more upstream measures of integration are positively associated with more

downstream measures of integration, and that increased levels of integration across all measures are positively associated with the secondary-school tracking outcomes of the youngest Turkish-origin generation.

In the path analysis for those of Southern-European origin, generational status is not associated with child secondary-school tracking outcomes, in contrast to what would be inferred from the AME models. Tellingly, family generational status is also not associated with *parent* education, indicating that the lack of an association between integration and education may have been present when these Southern European parents were themselves making the transition between primary and secondary school in Germany (as seen in the descriptive statistics, 80 percent of the Southern-European sample had parents who experienced their own schooling in Germany). However, generational status is positively associated with household German-language use and parent German citizenship, both of which are directly associated with occupational prestige. There was also a direct association between household German-language use and parent occupational prestige, which is in line with research that has found increased German language ability to be positively associated with measures of occupation (Euwals et al. 2007; Kosyakova and Sirries 2017), and the direct association between parent German citizenship and parent occupational prestige bolsters the argument that naturalization is positively associated with labor outcomes (Euwals et al 2010). Ultimately however, none of the measures of integration are directly or indirectly associated with the probability of *Gymnasium* enrollment for Southern-European children. Future work is needed to better understand the social determinants of secondary-school tracking among those of Southern-European origin in Germany.

Limitations

Like all studies, this one has limitations. First, students in the CILS4EU-DE sample were surveyed in the ninth grade, several years after they had initially been tracked. This precludes the ability to investigate how parent and child integration factors measured before entering secondary education are

associated with the school tracking of the child respondents. Unfortunately, retrospective questions on parent occupation or information on time of naturalization for either parents of children were not available. As such, it was necessary to assume that these measures were the same at the time of data collection as when the child was transitioning between primary and secondary school several years earlier.

Second, this study was not able to investigate or control for variation in how migrant integration factors influence school tracking at the state level. Within Germany, much of the educational policy is determined at the state-level, and variation in secondary schooling systems exists across states. However, all German states have a separate *Gymnasium* track, even if they have expanded their educational systems to include comprehensive schools that merge multiple tracks into one building (Becket et al. 2016). Additionally, across the German states that offer alternative school types, students who are recommended for the *Gymnasium* overwhelming attend the *Gymnasium*, with comprehensive or alternative schools mostly being attended by those who would have attended the *Hauptschule* or *Realschule* otherwise (Dietze 2011). For these reasons, analysis of *Gymnasium* entry at the national level is likely not to be heavily influenced by state-level variation in educational systems.

Finally, household German-language use is not an exact measure of parent German language ability. It is possible that a highly bi-lingual migrant-origin family may choose to speak the language of the sending nation at home, but have sufficient German language ability to interact with the German mainstream. This may particularly be the case for those of Turkish origin, where path analysis results indicated that household German-language use is not directly associated with occupational prestige or child school tracking. However, the CILS4EU-DE dataset only directly asked for the German language ability of the parent taking the parent survey and not of the parent who did not take the parent survey. For this reason, child-reported language when speaking to family members was considered a more holistic measure of language ability for both parents. Additionally, household language use is perhaps a better measure of *integration*, as it indicates the loss of sending-nation language use and a greater adoption of

German social norms. This understanding of language use as a form of social integration places it more in line with Gordon's theory of assimilation.

Conclusion

As subsequent cohorts of migrant-ethnic children enter secondary education, it will be necessary to ensure the equal representation of these children across the three tiers of the German secondary-schooling system. At the individual level, equal access to the highest tier of secondary schooling among all groups in Germany will help to mitigate inequalities for all forms of life-course socioeconomic attainment. At the macro-level, equality of educational attainment between groups will reduce the perceived social distance between native Germans and those of migrant-origin, which would have positive implications for migrant-origin groups in Germany beyond just those related to economic attainment (Alba and Nee 2003). For these reasons, any actions taken to reduce educational differences during adolescence are important to the future well-being of migrant-origin populations in Germany.

Results from the current study indicate that for Turkish-origin children, policy efforts to increase the labor mobility of parents and to reduce the burden of citizenship acquisition can help increase the likelihood that children from Turkish families enter the *Gymnasium*, though the effect of parent citizenship acquisition needs to be further validated given the results of this study. Results for those of Southern-European national origin were more mixed, with disparities in secondary-school tracking between this group and native Germans only being explained by accounting for all focal measures of parent and child integration *and* generational status. However, in the group-specific path analysis of integration and secondary-school tracking, no measure of integration, including generational status, was associated with the probability of *Gymnasium* enrollment for Southern-European children. Future work is needed to better understand the determinants of educational outcomes in this understudied migrant-origin group.

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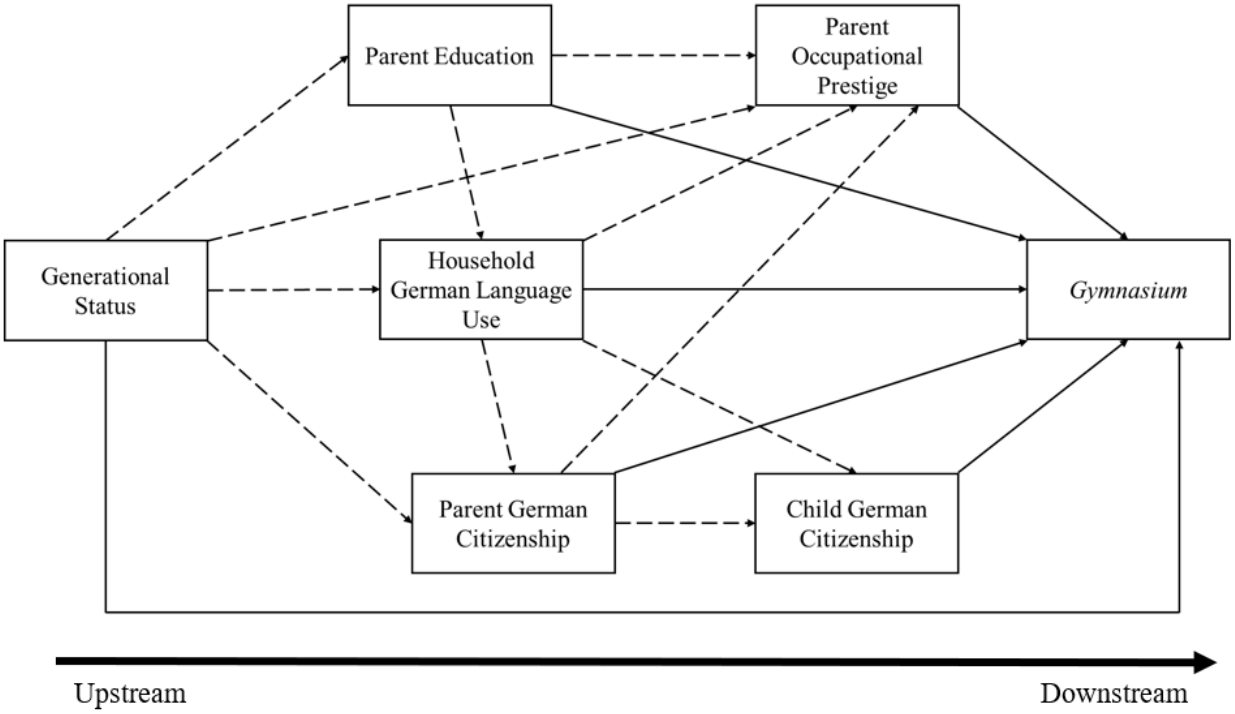

Figure 2.1 – Conceptual model of the intergenerational integration process. Solid lines indicate direct effects of integration measures on secondary-school tracking, while dashed lines indicate indirect effects of integration on secondary school tracking through mediating integration variables.

Table 2.1: Weighted Descriptive Statistics

	Native Germans (n=1,799)	Turkish (n=824)		Southern Europeans (n=307)	
	Prop./Mean (Std. Dev)	Prop./Mean (Std. Dev)		Prop./Mean (Std. Dev)	
Gymnasium	.33	.20	*	.18	**
Female	.48	.56	*	.51	
Parent Education					
No Secondary Education	.00	.10	***	.04	**
Lower-Secondary Education	.52	.64	*	.57	
Upper-Secondary Education	.22	.14	***	.19	
University Education	.26	.12	***	.20	
Parent Occupational Prestige	52.20 (20.10)	32.54 (18.29)	***	46.17 (21.55)	**
Household German-language use					
Never	.00	.36	***	.20	***
Sometimes	.02	.48	***	.29	***
Always	.98	.16	***	.51	***
Parent Educated in Germany	1.00	.61	***	.80	***
Parent German Citizenship	1.00	.40	***	.69	***
Child German Citizenship	1.00	.56	***	.70	***
Generational Status					
First Generation	.00	.07	***	.10	***
Second Generation	.00	.66	***	.17	***
2.5 Generation	.00	.18	***	.30	***
Third+ Generation	1.00	.10	***	.43	***

*=$p \leq .05$, **=$p \leq .01$, ***=$p \leq .001$

Table 2.2: Probit Regression of *Gymnasium* on National Origin and Measures of Intergenerational Migrant Integration (Average Marginal Effects)

	M1		M2		M3		M4		M5		M6	
	b/se		b/se		b/se		b/se		b/se		b/se	
Native German	0		0		0		0		0		0	
	-		-		-		-		-		-	
Turkish	-0.137	*	0.016		-0.057		-0.091		-0.011		0.036	
	(0.07)		(0.05)		(0.08)		(0.07)		(0.06)		(0.07)	
Southern European	-0.153	**	-0.103	*	-0.114	*	-0.12	*	-0.104	*	-0.064	
	(0.06)		(0.05)		(0.05)		(0.05)		(0.04)		(0.04)	
Parent Education												
No Secondary Education			0						0		0	
			-						-		-	
Lower-Secondary Education			0.082						0.100		0.103	
			(0.07)						(0.07)		(0.07)	
Upper-Secondary Education			0.191	***					0.206	***	0.209	***
			(0.08)						(0.07)		(0.07)	
University Degree			0.382	***					0.395	***	0.400	***
			(0.08)						(0.08)		(0.08)	
Parent Occupational Prestige			0.004	***					0.005	***	0.005	***
			(0.00)						(0.00)		(0.00)	
Household German-language use												
Never					0				0		0	
					-				-		-	
Sometimes					0.095				0.056		0.048	
					(0.06)				(0.05)		(0.06)	
Always					0.163	*			0.090		0.072	
					(0.08)				(0.07)		(0.07)	
Parent Educated in Germany					-0.017				-0.054		-0.057	
					(0.06)				(0.06)		(0.06)	

Table 2.2, *cont.*

Parent German Citizenship					-0.056		-0.184	**	-0.192	**
					(0.08)		(0.07)		(0.07)	
Child German Citizenship					0.216	**	0.134	*	0.128	
					(0.07)		(0.07)		(0.07)	
Generational Status										
First Generation									0	
									-	
Second Generation									0.130	
									(0.07)	
2.5 Generation									0.085	
									(0.08)	
Third+ Generation									0.183	*
									(0.07)	
Female	0.053		0.044	0.052	0.054		0.046		0.045	
	(0.03)		(0.03)	(0.03)	(0.03)		(0.02)		(0.02)	
n	2,930		2,930	2,930	2,930		2,930		2,930	

*=p ≤ .05, **=p ≤ .01, ***=p ≤ .001

Table 2.3: Correlation Matrix of Variables Used in the Path Analysis: Turkish-Origin Group

	1	2	3	4	5	6	7
Gymnasium[1]	-						
Generational Status[2]	.1463*	-					
Parent Education[3]	.2263*	.1805*	-				
Parent Occupational Prestige[4]	.2581*	.2515*	.3984*	-			
Household Foreign Language Use[5]	.0862*	.2407*	.0892*	.1806*	-		
Parent Citizenship[6]	-.0205	.4255*	.0818*	.2998*	.2712*	-	
Child German Citizenship[7]	.1479*	.3173*	.1049*	.2198*	.1801*	.4953*	-

Table 2.4: Goodness-of-fit Statistics for the Turkish-Origin Path Analysis

Chi 2	DF	P-value	RMSEA	90% Conf In.	Prob. RMSEA <=.05	CFI	TLI
20.504	9	.015	.039	.016-.062	.755	.969	.906

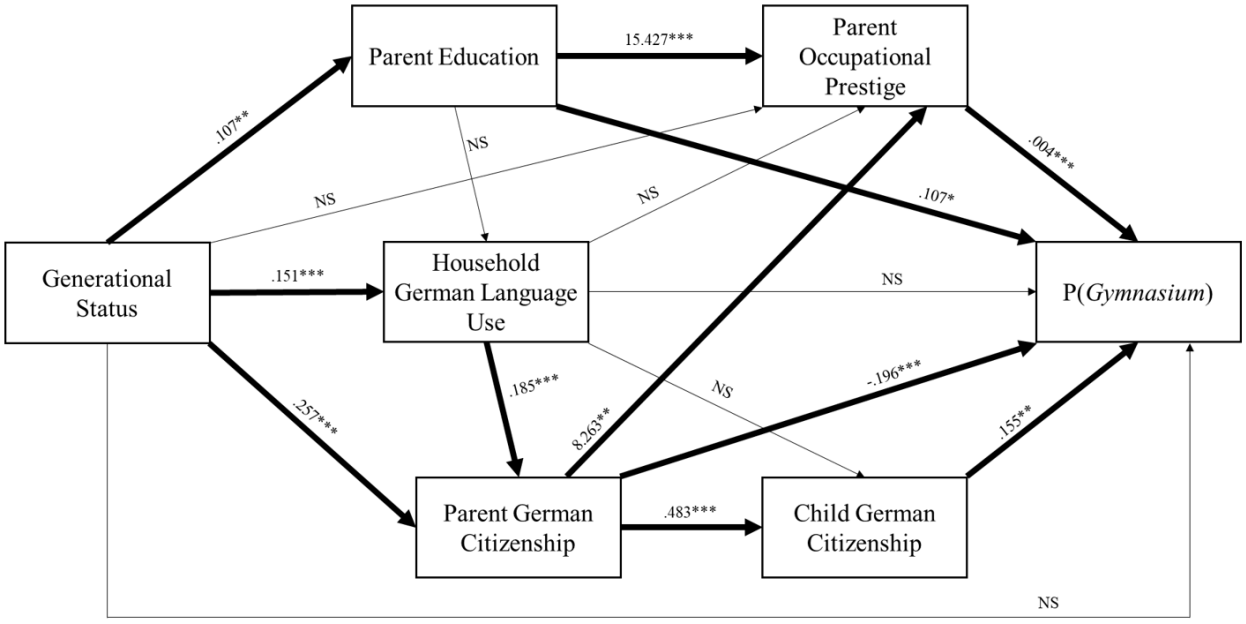

Figure 2.2 -Turkish-origin path analysis

Table 2.5: Significant Indirect Effects of the Turkish-Origin Path Analysis

Path	Indirect Effect	Confidence interval
Generational Status →…→ *Gymnasium*		
Parent Education → Parent Occupational Prestige	0.007	0.001, 0.018
Household German-language use → Parent German Citizenship	-0.005	-0.011, -0.001
Parent German Citizenship	-0.050	-0.084, -0.003
Parent German Citizenship → Child German Citizenship	0.019	0.007, 0.034
Parent German Citizenship → Parent Occupational Prestige	0.009	0.001, 0.019
Parent Education →…→ *Gymnasium*		
Parent Occupational Prestige	0.063	0.012, 0.117
Household German-language use →...→ *Gymnasium*		
Parent German Citizenship	0.036	0.009, 0.078
Parent German Citizenship → Child German Citizenship	-0.014	-0.014, -0.003
Parent German Citizenship →…→ *Gymnasium*		
Child German Citizenship	0.075	0.026, 0.127
Parent Occupational Prestige	0.033	0.005, 0.072

Table 2.6: Correlation Matrix of Variables Used in the Path Analysis: Southern-European group

	1	2	3	4	5	6	7
Gymnasium[1]	-						
Generational Status[2]	.0839	-					
Parent Education[3]	.2301*	.0353	-				
Parent Occupational Prestige[4]	.3209*	.2653*	.5136*	-			
Household Foreign Language Use[5]	.1692*	.4834*	.1939*	.3993*	-		
Parent Citizenship[6]	.1752*	.5618*	.2194*	.4630*	.6404*	-	
Child German Citizenship[7]	.1888*	.5571*	.2267*	.4333*	.6708*	.8731*	-

Table 2.7: Goodness-of-fit Statistics for the Southern-European Path Analysis

Chi 2*	DF	P-value	Estimate	90% Conf In.	Prob. RMSEA <=.05	CFI	TLI
13.043	9	.1607	.038	.000-.080	.62	.988	.964

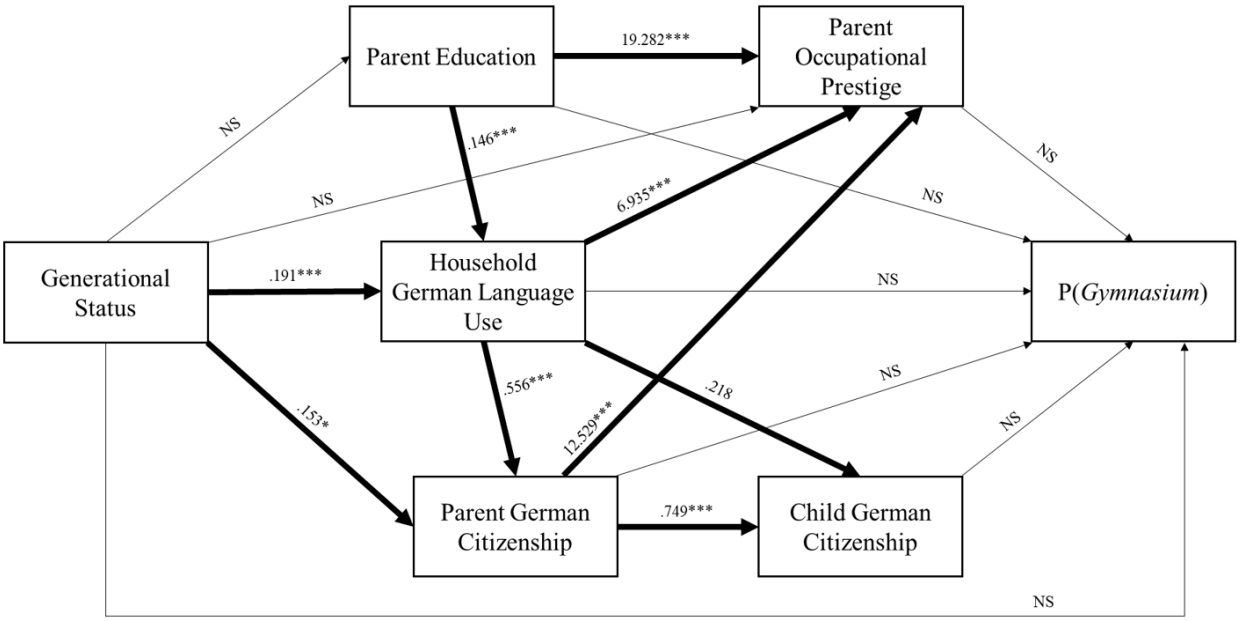

Figure 2.3 - Southern-European-origin path analysis

CHAPTER 3: ADOLESCENT TRAJECTORIES OF NATIONAL AND ETHNIC IDENTITY IN GERMANY

Introduction

Adolescence is an important stage of identity development in the human life course. While the understanding that each individual occupies a set of roles that determine their behaviors in a social setting is engrained in childhood, it is only in adolescence that individuals begin to understand that the society they live in is made up of larger social groupings based on socially determined between-group distinctions (Kroger 2006; Tajfel and Turner 1979). The ability for adolescents to recognize these social groupings for the first time is the result of both increases in cognitive functioning that allow for this sort of abstract thought and a lessening of social constraints imposed by parents, which in turn facilitates greater inter-group interaction and exposure to mass media (Elder 2015; Kroger 2006). Newly aware of the group-level distinctions that exist in their society, these youth spend adolescence developing their *social identities*, defined by the in-groups they are part of and the out-groups they are not part of (Tajfel and Turner 1979). While all adolescents develop social identities through this stage of the life course, those of migrant origin are in the unique position of grappling with the formation of both a national and an ethnic social identity, where the former is a feeling of belonging to the nation in which they live and the latter is a feeling of belonging to the nation from which they or they family is ancestrally from (Berry 1997).

In Germany, where over a quarter of the population has a migration background (Statistische Bundesamt 2019), the social-identity formation of migrant-origin adolescents is an important research topic. Historically, Germany was founded on the idea that German citizenship is a function of German ethnicity, and this notion of ethnic belonging still exists today. Even though the German government has come to the inevitable conclusion that Germany is a "nation of immigration" (Göktürk et al. 2007), this

acceptance of ethnic multiplicity has not garnered national support for multi-culturalism or a pluralistic understanding of national belonging. Instead, integration efforts have largely been aimed at the cultural and linguistic assimilation of migrant-origin populations (Bendel 2014; Weber 2012; Yardakul and Korteweg 2013). Within the general German population, ethnic distinctions between natives and those of migrant origin are "bright" (Alba 2005), and animosity towards migrants is high (Talo 2017). It is within this social context that those of migrant origin must form their national and ethnic social identities.

Within the unique social circumstances present in Germany, of need are studies that investigate the longitudinal growth of national and ethnic identity across adolescence, the period of the life-course in which these social identities develop. Of particular need, as noted by contemporary scholars of migrant identity formation (Fleischman and Verkuyten 2016; Wiley et al. 2019) are studies that determine whether these identities are "compatible with one another" (Verkuyten et al. 2019), i.e., to what extent the growth of one identity is associated with positive or negative growth of the other. While extant studies have investigated the correlation between the formation of national and ethnic identities cross-sectionally, little research to date has investigated how these identities covary overtime, with no longitudinal research utilizing a nationally representative sample of the German adolescent population.

Additionally, given the importance of an individual's social contexts in the development of their social identities, particularly in migrant-origin populations (Deaux 2006), research regarding longitudinal identity formation needs to consider those individual-level factors that may lead to heterogeneous identity growth. The generational status of an adolescent is one such factor. According to classic theories of assimilation, those of migrant origin will lose their sense of belonging to their nation of origin and begin to more fully assimilate into a social identity associated with the receiving nation, with this process occurring both within individuals and across generations (Park and Burgess 1921). However, this straight-line, assimilationist theory of identity formation was developed when studying the "settler society" of the United States, which exhibits a very different understanding of national belonging than Germany. In the "Old World" nation of Germany, understandings of national belonging, and even citizenship law itself, are primarily a function of ethnicity (Anil 2005; Brubaker 1992). This ethnicity-based interpretation of

German belonging has been found to have implications for intergenerational identity development (Celik 2015; Hess 2016), though longitudinal analysis within a dual-identity framework remains to be done.

Finally, given the complex mosaic of national-origin groups in Germany and the unique factors of identity formation experienced by each, the study of dual identity in this context requires analysis of identity formation that tests for heterogeneity between national-origin groups. Macro- and meso-level contextual factors, including native attitudes towards migrants, government immigration policy, and citizenship law, all of which are determinants of migrant-origin identity formation (Deaux 2006), have disproportionately impacted members of certain national-origin groups in Germany, bringing into question whether all groups experience the same patterns of national and ethnic identity development, both within an individual life course and across generations.

Using a nationally representative, longitudinal dataset of migrant-origin adolescents in Germany that includes respondents who were in the ninth grade at baseline and followed roughly annually for six additional waves, this study will use Multivariate Latent Growth Curve Modeling to further explore 1) the trajectories of national and ethnic identity through adolescence, 2) the extent to which these identities covary, both in the beginning of adolescence and across the adolescent life course, and, 3) how these trajectories of identity growth differ as a function of generational status. Additionally, all analyses will be done while testing for heterogeneity as a function of national origin.

Background

Identity Formation in Adolescence

In his collection of essays, *Mind, Self, and Society*, George Herbert Mead advanced the idea of the "Self" as the interplay and the balance between the individual level concepts of the "I" and the "Me". According to Mead, the "me" is how an individual understands he or she must be viewed by others in society, based on their interactions with these others; the "I" is the response of the individual to his or her understanding of their "Me". In Mead's own words, "The 'I' is the response of the organism to the attitudes of the others; the 'me' is the organized set of attitudes of others which one himself assumes."

(1934, p. 175). Because the constant, near instantaneous interplay of the "I" and the "me" is the result of interactions with others in society, or the result of how an individual assumes he or she presents themselves within the social world, the formation of the Self is strictly a social phenomenon. Building off Mead's ideas regarding the process through which the Self is formed within an individual, Henri Tajfel and John Turner posited the Social Identity Theory (1979) as a way to understand not only how individuals form their Self-concepts, but also how they understand the larger social groups to which they do and do not belong. Using the term "self-categorization" to describe the individual-level formation of the Self presented by Mead's theory, Tajfel and Turner state that individuals also engage in the process of "social comparison", in which they take their own understood Self and compare it to others in society. Using these comparisons, individuals begin to learn which groups they are part of, or in-groups, and which groups they are not part of, or out-groups. As these in-group identities solidify within an individual, further interpersonal interaction with fellow in-group members fosters positive attitudes towards the in-group and negative attitudes towards out-groups (Abrams and Hogg 1998). This within in-group interaction also leads individuals to adopt norms, attitudes, and behaviors in-line with those of the in-group, further solidifying the distinction between one's own in-group and the other out-groups (Turner 1982).

While the social interactions that both alter and re-enforce in-group identification occur over the entire life course, adolescence is a particularly important stage in social-identity formation for both biological and social reasons (Elder et al. 2015). Adolescence, often defined as the time between the onset of puberty and the establishment of social independence (Curtis 2015), is marked by rapid changes in the body and the brain. With these cognitive advancements, individuals begin to grasp at the existential question of "who" they are (Erikson 1950) and adolescents begin to understand the social world around them in more complex ways than were available to them in childhood (Brinthaupt and Lipka 2002). This increased cognitive functioning allows adolescents to analyze their own social position in the context of the larger society in which they live, as opposed to the more local, individual understanding of the Self characterized by earlier stages of the life course (Kroger 2006). As adolescents develop a greater

understanding of the larger social world around them, they begin to identify the groups to which they belong and do not belong based on social ques that result from interpersonal interactions (Kroger 2006). However, while adolescents are able to form in-group and out-group identities for the first time, the contradictory nature of multiple social identities can lead to internal conflict, classically described as a "Crisis of 'Me's'" (James 1892), or more recently, as the "kaleidoscopic self" (Harter 2012). This crisis is often not resolved until the end of adolescence, when individuals are better able to cognitively reconcile their feelings of belonging to multiple social identities (Harter 2012).

In addition to the increased cognitive functioning that better allows individuals to understand themselves as social objects and members of socially constructed and regulated in-groups, the social contexts of adolescent life, and the unique social meanings placed by society on adolescence, make this period particularly important to social-identity development (Elder et al. 2015). Adolescence is the point in the life course when the overall influence of parents wanes and the social influence of peers increases, leading to greater social comparison with peers than family members. This shift in reference group is largely a function of the mandatory, highly structed schooling systems today that isolate adolescents into groupings of their same-aged peers (Corsaro and Eder 1995; Elder 1985). As adolescents enter early adulthood, their social networks expand as they exit the school context and more frequently interact with people of more diverse ages (Kroger 2006). Across adolescence, improvements in cognitive functioning, changes to social reference groups, and shifts in the contexts in which these individuals live can lead to distinct stages of social identity across this part of the life course (Kroger 2006; 2015). As a result, the trajectories of social identities across adolescence are often not linear (Harter 2012; Kroger 2006).

National- and Ethnic-Identity Formation in Adolescence

One important in-group identity an individual develops is their national identity, or a feeling of belonging to the nation in which they live (Barrett et al. 2004; Penrose and Mole 2008). This perception of national in-group belonging is founded on the idea of shared cultural norms and values that unite a population within a determined land boundary, and is reinforced by the presence of symbols and

narratives that act as "expressions of national feeling" (Scourfield et al. 2006, pg. 9). As individuals age through childhood and adolescence, they are socialized to develop this identity within both the family and the school context, the latter being particularly important due to the role that governments play in determining school curriculum (Hopkins 2010; Muldoon et al. 2007). In some cases, this national identity, and indeed the foundation of the nation-state to which it is associated, is based on the understanding of a shared ethnic heritage among the majority group within the nation. This ethnic interpretation of national belonging supplements the shared cultural norms and values that define national in-groups (Brubaker 1992). However, national identity is not inherently a function of ethnicity, as individuals may also base their understanding of a shared national in-group identity on the "social, economic, and political unit" defined by the nation-state, which excludes any hereditary definition of a nation (Gruffudd 1999).

This formation of a national identity is also present in adolescents of migrant origin, as they too, by means of their residence, are part of the shared "social, economic, and political unit" of the nation in which they live. However, migrant-origin adolescents also develop a sense of belonging to the national society from which they came, or from which their family is ancestrally from (Berry 1997; Phinny et al. 2006). Cultural norms and practices associated with the national identity of a *sending state* are often transferred by migrants into the receiving state, at which point this identity becomes a unique "ethnic identity" within the receiving state, in contrast to the established national identity of the receiving state. Through associating with their families and members of their community with a shared national-origin status, migrant-origin adolescents gain a sense of attachment and in-group belonging to their families' sending nation through the same processes of social comparison and self-categorization that determine in-group identity development for all social identities (Phinny et al. 2006). Social exclusion from the institutions of the majority-native population, limited access to upward social and economic mobility, and exposure to discrimination, both interpersonal and structural, can also influence those of migrant origin to develop stronger social identities with their nation of ethnic origin (Alba and Nee 2003; Portes and Zhou 1992). Because one can occupy multiple social identities (Tajfel and Turner 1979), and because migrant-

origin individuals in Western receiving states interact with members of both native-majority and co-ethnic groups in the process of social comparison and self-categorization, migrant-origin adolescents develop varying degrees of attachment to both the national society in which they live and the society of their ancestral ethnicity, i.e., a national and an ethnic identity (Berry et al. 2006). Across adolescence, those of migrant origin, particularly those who are born in the receiving state, must grapple with the development of these two, sometimes seemingly contradictory, social identities. Thus, the functional forms of these identity trajectories, i.e., how these identities manifest across time, may not be constant across the adolescent life course. Rather, these functional forms may exhibit a non-linear trend and vary considerably from age to age. This non-linear pattern is perhaps even to be expected, given the fluid developmental nature of adolescence in general, and the known effect this can have in complicating the social identity formation of youth (Harter 2012). However, given the lack of longitudinal study on national and ethnic identity formation among migrant-origin adolescents, these functional forms remain to be more thoroughly explored.

Given the dual development of national and ethnic identities across the adolescent life course among those of migrant origin, and the tumultuous nature of social-identity formation across adolescence, both for those of migrant origin and for adolescents more generally, this study aims to answer this first set of research questions:

Q1a: What are the appropriate functional forms of national and ethnic identity trajectories across adolescence for those of migrant origin in Germany?

Q1b: Do the functional forms of these trajectories differ as a function of national origin?

The Interaction between National and Ethnic Identities across Adolescence

While it is understood that migrant-origin adolescents develop, to some degree, both a national and an ethnic identity, research is needed to investigate how these identities interact both within and across adolescence. Social-psychological research that was foundational in advancing the study of dual-

identity formation has mainly focused on categorizing respondents into groups, or "acculturation profiles", based on dichotomous understandings of national and ethnic identification, and seeing how these profile groupings are associated with different social and psychological outcomes (Berry 1997; Berry 2006; Hirsh and Kang 2016; Phinny et al. 2006). By simply grouping adolescents into mutually exclusive categories as a function of their attachment to each identity, this work has not fully explored the extent to which these identities are correlated, or, are "compatible with one another" (Verkuyten et al. 2019). In the European context, where social acceptance of multiple or blended identities is much lower than in the comparable American context, identity formation may take a more "conflictual" state. In this conflictual state, having both a strong national and a strong ethnic identity is seen as incompatible, leading to negative correlations between these identities across members of a given migrant-origin group (Foner and Alba 2008). Indeed, in the research that has been done to date on the interaction between these identities, a negative association between national and ethnic identity has often been found in cross-sectional analysis in European samples (Berry et al. 2006; Martiny et al. 2017; Verkuyten and Yildiz 2007; Verkuyten et al. 2012). However, this work has primarily focused on national-origin groups that experience the greatest amount of discrimination and social/structural disadvantage in the nations of Europe, where negative correlations between national and ethnic identity are most likely to exist.

Additionally, more research is needed to investigate how national and ethnic identities interact across adolescence and into adulthood, i.e., how the *growth* of one form of identity is associated with *growth* in the other. To date, research has either focused on the growth and development of one given identity (Meeus 2011; Schwartz et al. 2014) or has looked at multiple identities cross-sectionally (Fleischman and Phalet 2018; Phinny et al. 2006). The need to understand this relationship longitudinally within individuals has been noted by previous scholars, particularly during the adolescent life course (Fleischman and Verkuyten 2016; Wiley et al. 2019). As individuals age through adolescence, physical and social changes influence how they reconcile multiple social identities (Harter 2012), and these changes have stark implications for the identity development in migrant-origin adolescents. This is seen in cross-sectional research that has found that the strength of identification with both national and ethnic

identities is a function of which developmental stage respondents are in across adolescence (Feliciano and Rumbaut 2019; Verkuyten et al. 2012).

In the one study to date that has looked at the interaction of national and ethnic identities longitudinally across adolescence, Fleischman and colleagues (2019) utilized a sample of German adolescents with migration backgrounds who were around age 13 at baseline and re-interviewed two more times at nine-month intervals. In their analysis, these researchers found that national and ethnic identities were positively or non-significantly correlated at each time point, indicating that identification with a national identity does not necessarily come at the expense of identification with an ethnic identity. This finding held in cross-lagged models that analyzed the correlation of these identities across time, showing that these migrant-origin adolescents were also able to experience growth over time in one form of identity independent of growth over time in the other. Ultimately, Fleischman and colleagues' longitudinal findings contrasted with the understanding that those of migrant origin experience a "conflictual state" in adolescence that requires in-group identification with either the national group or the ethnic group.

Following the call of identity scholars focusing on the dual-identity formation in migrant-origin adolescents (Fleischman and Phalet 2016; Wiley et al. 2019), this study will build on the important initial contributions of Fleishman and colleagues. Perhaps most importantly, this current study will be able to investigate heterogeneity in the association between national and ethnic identity across adolescence between different national-origin groups in Germany. While the previous study by Fleischman and colleagues was able to control for national-origin status, the researchers were not able to analyze differences in the association between national and ethnic identity between groups, a limitation noted by the researchers.

Given the diverse contextual factors that can determine migrant identity, many of which produce heterogeneous effects on identity formation between individuals of different national origin groups (Deaux 2006), the extent to which national- and ethnic-identity growth covary across adolescence may differ between groups. The study will aim to answer this second set of research questions:

Q2a: How do national and ethnic identity covary in migrant-origin adolescents in Germany, both at the beginning of adolescence and in their growth across adolescence?

Q2b: Do these covariances differ as a function of national-origin group?

Generational Status and Migrant Identity in Germany

Given the lack of longitudinal research to date on the interaction between national and ethnic identity generally, research investigating the individual-level factors that may moderate the growth of both these identities over adolescence is scant. Understanding contextual and individual determinants of identity growth in migrant-origin adolescents is necessary to fully investigate the complex nature through which social identities develop within this population (Deaux 2006). Defined as "the ancestral distance from the point of arrival in a society" (Alba 1988) and measured by the number of generations that have occurred within a family since initial migration, the generational status of a migrant-origin adolescent is one such determinant (Deaux 2006). In the migrant integration literature, the first generation is defined as those who are migrants themselves (born in the sending nation), while the second generation is defined as those who were born in the receiving nation to two parents who were both themselves migrants. For groups that are more established in a receiving nation, the "2.5" generation is used to denote those born to a family in which one parent was a migrant and the other was born in the receiving nation, and the third generation are those of a minority ethnicity born to two parent who themselves were born in the receiving nation.

Generational status is an important determinant of national and ethnic identity for two primary reasons. First, as a measure of where one was born. i.e., in the sending vs. the receiving nation, generational distinctions between the first and later generations define those who have spent at least a portion of their lives in the sending nation vs. those that have not. For those of migrant origin born in the receiving nation, the entire early-life socialization process would have occurred in this setting and would be the foundation of their adolescent in-group identity development experience (Skrbis et al. 2007).

Second, migrant-origin adolescents of different generations are raised in families with different levels of ethnic and national cultural capital (Becker 2011; Chiswick 2006). As these levels of ethnic and national cultural capital differ between individuals of different generations, so too do their levels of "cultural competency" in each culture, or, their ability to "do belonging" within each social in-group (Skrbis et al. 2007). As members of migrant-origin groups form their in-group identities and feelings of in-group belonging, they strongly rely on their competency within each culture to inform this process (Skrbis et al. 2007).

In classical theories of migrant assimilation, where assimilation is hypothesized to be a unidimensional linear trend across generations, such as the assimilation theory presented by Park and Burgess at the beginning of the 1900's, it is understood that each subsequent generation of a migrant-origin family experiences a loss of ethnic cultural capital and a gain in useful national cultural capital, resulting in lower ethnic cultural competency and higher national cultural competency (Park and Burgess 1921). This in turn leads to a loss of identity with the sending society and a stronger attachment to the national identity of the host nation. However, this model of inter-generational identity development, which posits that this assimilation is the inevitable end of the "race-relation cycle" (Park 1950), does not take into account the presence of social boundaries between native and migrant-origin populations that define ethnic differences and create socially understood distance between all members of these groups. Present across societies, these ethnic social boundaries based on cultural and physical differences between ancestral groups (real or imagined) inform understood differences between native and migrant-origin groups within a receiving society (Alba and Nee 2003; Shibutani and Kwan 1960). In their *New Assimilation Theory,* Alba and Nee (2003) argue that the ethnic social boundaries that delineate groups are "made daily" by individuals through routine intergroup interactions, and that overtime these boundaries take on a concrete nature within society as the result of being repetitively "made" through these interactions. Because these boundaries are based on understood ethnic differences between those of different national origins, real or imagined, these social boundaries impact the daily interaction between members of the native group and those of migrant origin, regardless of the generational status and cultural

competencies of the latter. Given that social-identity formation is a function of intergroup interaction (Tajfel and Turner 1979), the association between in-group identity and generational status may be weaker among migrant-origin adolescents in a receiving society that exhibits strong inter-group social boundaries.

Germany, often characterized as an "Old World" nation of Europe in the migrant integration literature (Alba and Foner 2015), is a country in which social boundaries between natives and non-natives are clearly defined (Alba 2005). Germany was founded on the idea that nation-states are comprised of a set, homogeneous population with a common history, a shared language, and a unified ethnicity and ancestry (Greenfeld 1992). This understanding of nationhood as a "community of decent" has been enshrined in German consciousness since the founding of the German state (Brubaker 1992) and has always been the basis for its migration and integration policy. The German sense of national membership is quite different from the United States', a country with a long history of in-migration and a national consciousness rooted in the tradition that the national collective is made up of many diverse ethnic groups. The *jus soli*, or birthright, citizenship laws of the United States are also starkly different from the primarily *jus sanguinis* citizenship laws of Germany that limit the transmission of citizenship to those who are born to German citizens. As a nation not founded with the "Settler Nation" mentality inherent to the United States, Germany has clearly defined notions of an ethnic in-group and, by definition, ethnic out-groups.

Given the ridged social boundaries that define in-group membership within the German society along ethnic lines (Brubaker 1992), feelings of exclusion based on national origin would be hypothesized to lead to low levels of national identity among migrant-origin individuals of all generations, and negative intergroup interaction or negative representations of migrants by the German mainstream would increase in-group bias and subsequently increase ethnic identity for all members of non-German national origin groups (Abrams and Hogg 1998). This alternative relationship between generational status and identity contrasts with the intergenerational pathway hypothesized by the traditional assimilationist literature, mainly developed through studying the European migrants who settled in the United States at the turn of

the 20th century. Understanding how generational status can influence the *growth* of identity across adolescence is important as well; as migrant-origin individuals age across this period of the life course, improvements in cognitive functioning and increased interactions with non-family members allow them to better perceive the social boundaries that exist between the native-German population and their own national-origin group. The extent to which this life-course development is associated with different trajectories of growth in both national and ethnic identity between generations remains to be investigated.

National Origin and Intergenerational Migrant Identity in Germany

The extent to which national and ethnic identities are associated with generational status is also likely a function of national origin (Nauck 2001). Expanding on the concept of social boundaries, Alba (2005) describes how attributes inherent to a migrant-origin group, or understood to be inherent by the native population, can brighten or blur ethnic social boundaries. One primary example of a bright boundary in Germany is the practice of Islam, which brightens the social boundary between native Germans and those of migrant origin from Turkey, but not those from other sending nations in Eastern and Southern Europe. Animosity towards Muslims is often grounded in the assumption of many native Germans that Muslim migrants do not accept Western ideals of democracy and equality, particularly gender equality. Rare instances of honor-killings and forced marriage in Germany have been used as evidence of this by those in the German right wing (Yurdakul and Korteweg 2013). Since the attacks of September 11, 2001, arguments about the incompatibility of Islam in Germany from a cultural standpoint have been supplemented with arguments about the threat Muslim migrants could pose directly to the well-being and safety of the German people (Faist 2005). This exposure to religious discrimination and negative media representations of Muslims drives a negative association between Turkish-ethnic and German-national identity in those of Turkish origin (Kunst et al. 2011). When exposed to interpersonal discrimination or negative media representations involving their faith, those of Turkish ethnicity are likely to see this not as an individual-level phenomenon, but as a reflection of anti-Muslim or anti-Turkish sentiments characterizing the entire German society (Holtz et al. 2013; Kunst et al. 2011). This

Islamophobia at the national level leads many Turks in Germany to feel as if they can never "truly" be German, even if they have German citizenship or were born in Germany (Holtz et al. 2013). Many Turkish-ethnic youth, even those born in Germany, form a greater sense of in-group belonging with their ethnic identity, expanding the personal social boundary they create between themselves and the wider German society (Holtz et al. 2013). Further research has found that this perception of incompatibility between native and ethnic identities among Muslims in Germany is not present in Christians of non-German ethnicity (Sixtus et al. 2019).

In contrast to religion, citizenship represents a situation in which social boundaries can be blurred in Germany between native Germans and those of migrant origin from specific sending nations. Of those who have migrated into Germany from Eastern Europe and the nations of the former U.S.S.R., many were ethnically German, and, due to Germany's ethnicity-based citizenship laws, were granted immediate citizenship upon entering. While the attitudes of the native-German population toward the entry of these migrants was often negative, the official position of the national government facilitated their entry and citizenship acquisition (Hess 2016). The ease at which these ethnic-German migrants are able to acquire citizenship is in direct contrast to the other migrant-origin groups who live in Germany. Because inheritance of German citizenship, until 2000, was solely a function of heredity, many second- and third-generation "migrants" are in fact native born. Indeed, one-fifth of all foreign nationals in Germany were born in Germany (Green 2012). Barriers to naturalization for those of non-German ethnicity remain high (Anil 2007), and overall, acquisition of German citizenship by foreign nationals of non-German ethnicity is low (Statistische Bundesamt 2018). For migrants and those of migrant origin from non-German EU nations, the benefits of naturalization are limited given the freedoms they experience within Germany due to their EU-citizenship. For those Turkish-origin, social exclusion often limits their desire to become German citizens (Anil 2007; Celik 2015).

When social boundaries are bright, identification with the national society is low across all generations (Alba 2005), and exposure to discrimination and negative social representations can lead those of migrant origin to adopt a "reactive ethnicity", in which they grow more attached to the identity of

their family's sending nation (Portes and Rumbaut 2001). Limited opportunity for upward social mobility can also increase feelings of ethnic in-group identification and opposition to the national majority out-group (Portes and Rumbaut 2001). For those of Turkish origin, this has generally been the finding, with subsequent generations showing little, if any, increase in German identity (Guveli et al. 2016), and in some cases a strong reactionary Turkish identity (Celik 2015). For Turkish-origin students in the lowest tier of the German schooling system, this "re-ethnicization" is particularly strong (Skrobanek 2009). Across adolescence, the development of this Turkish reactive ethnicity in the second and later generations would occur more rapidly as these individuals age, as their ability to cognitively comprehend the social distance between themselves and the native majority would increase with age. As they enter adulthood, experiences of limited upward mobility in the German labor market, as has been documented previously (Algan et al. 2010), would only increase the gap between their native and ethnic identities. However, the research to date has not yielded unanimous findings, as some research has rejected the idea that Turkish second-generation migrants develop a reactive ethnicity (Diehl and Schnell 2006), though no research has adequately investigated this relationship longitudinally.

When the social boundary between natives and a given migrant-origin group is blurred, generational status is positively associated with a loss of ethnic identity and increased national identity (Alba and Nee 2003). For ethnic Germans from Eastern Europe and the former U.S.S.R. who were repatriated into Germany, the largest group of migrants coming from these nations, those in the first-generation report a feeling of being "in the middle" between their national German identity and their ethnic identity (Hess 2016). However, social and economic integration of this migrant-origin group in the second and later generations is high (Hess 2016). Additionally, national acceptance of this group, at least at the governmental level, along with a general willingness by this migrant group to rapidly lose their Russian or other Eastern European identification in favor of a national German identity in later generations, further facilitates a more traditional understanding of identity assimilation within this national-origin group. Across adolescence, given the blurred social boundary between native Germans and these "return" migrants from Eastern Europe and the former U.S.S.R., it may also be assumed that

these migrants do not experience the same "crisis of identities" that exists in adolescents from migratory backgrounds that are greater in social distance from the majority society, as national and ethnic identities are not seen as incompatible. This in turn would lead to less variability across time in the trajectories of national and ethnic identification across this period of the life course.

National- and ethnic-identity formation among those ethnically from Southern Europe is understudied in the migrant integration literature, both generally and as a function of generation, despite a long history of in-migration from this region (Döktürk et al. 2007). While these migrants generally see better upwards labor mobility in later generations (Algan et al. 2010) and report less exposure to discrimination than Turks and those from Eastern Europe and the former U.S.S.R. (Schunck et al. 2015), their acquisition of citizenship is limited (Statistische Bundesamt 2019) and evidence does exist that discriminatory school tracking practices disadvantage those of Southern-European ethnicity (Kristen and Granato 2007). Across generations, these adolescents may lose a sense of attachment to their sending nations through an intergenerational loss of cultural competency, however the recognition that they are not German in a state where ethnicity defines in-group belonging may limit their German national identity, even at later generations when German cultural competency is high. At the same time, loss of ethnic cultural competency may decrease feelings of belonging to their ethnic identity as well, leading to low levels of in-group belonging with both their national and ethnic identity. Across adolescence, these feelings of not belonging to either identity may become more pronounced, or perhaps they too experience a form of "re-ethnicization" similar to those of Turkish ethnicity. The exact trajectory of both these identities across adolescence for this group remains to be explored.

Given the ethnic understanding of German in-group belonging and the heterogeneity with which different national origin groups experience "bright" or "blurred" ethnic boundaries with the majority German society, this study will aim to answer this final set of research questions:

Q3a: How do the adolescent trajectories of national and ethnic identity differ as a function of generational status?

Q3b: Do these generational effects differ as a function of national origin?

Data and Methods

Data

Data for this chapter come from the Children of Immigrants Longitudinal Study in Four European Countries – German sample (CILS4EU-DE) (Kalter et al. 2016). CILS4EU-DE is a nationally representative sample of German adolescents who were 15 years old in 2011 (at Wave 1) and have since been re-interviewed annually in six subsequent surveys (Waves 1-7). The current study utilizes data from all seven waves of the CILS4EU-DE study. As a study conducted in the interest of furthering research on migrant and migrant-origin populations in Germany, this sample includes a large oversample of Germans with migration backgrounds. It also includes a rich array of survey items related to the integration of these migrant-origin adolescents, both structurally and socially, many of which have been asked at each wave of data collection. As such, these data allow for the longitudinal study of these respondents as they age through the adolescent life course.

For the analytic sample, respondents are included if they belong to one of three national-origin groupings. These groupings are "Turkish", those from "Eastern Europe and the former U.S.S.R.", and those from "Southern Europe". A full description of how national origin was determined within the CILS4EU-DE study can be found in Dollman et al. (2014). Information on the specific countries that are included in each of these larger national-origin groupings can be found in the **Appendix B**. The final sample size of the analytic sample is 1,845. Sample sizes by national-origin groupings can be found in **Table 3.1**. Due to missingness as the result of attrition across the seven waves of the CILS4EU-DE sample, Full Information Maximum Likelihood (FIML) estimation is utilized in all analyses. A full description of this missingness procedure can be found in the **Appendix C**.

Variables

Identity: For national identity, adolescents in the CILS4EU dataset were asked "How strongly do you feel German", to which answers were recorded on a four-point Likert scale from "Very strongly" to "Not at all strongly". For ethnic identity, respondents were asked "How strongly do you feel you belong to [your ethnic group]", to which answers were recorded on the same four-point Likert scale. These two social identity items were asked at each wave of the CILS4EU-DE data collection. The final variables of national and ethnic identity at each wave are coded on an ordinal categorical scale from 0-3, in which higher values indicate greater feelings of belonging to each identity.

Generational status: Respondents are categorized according to four generational status types; "First Generation" for those not born in Germany, "Second Generation" for those that were born in Germany but have two foreign-born parents, "2.5 Generation", for those that have one parent born in Germany and one born outside of Germany, and "Third Generation" for respondents with both parents born in Germany, but at least one grandparent that was not born in Germany.

Weighted descriptive statistics of these time-invariant variables by national-origin grouping can be found on **Table 3.1**. In all tables of this chapter, national-origin groups go by the shortened titles of "Turk" for those of Turkish-origin, "East" for those ancestrally from Eastern Europe or the former U.S.S.R., and "South" for those ethnically from a nation of Southern Europe.

As an additional set of descriptive statistics, **Table 3.2** and **Table 3.3** present the means of national and ethnic identity respectively at each wave within each national-origin group. These two tables also show the difference in the mean between each wave and the one prior. For German identity (**Table 3.2**), a consistent pattern appears in which, at each wave, those of Turkish origin have the lowest mean level of German identity while those ancestrally from Eastern Europe or the former U.S.S.R. have the highest mean level of German identity. At each wave, those of Southern European ethnicity fall somewhere in between the two other groups. For ethnic identity (**Table 3.3**), the opposite is seen, where those of Turkish origin have the highest level of ethnic identity and those of Eastern European/former U.S.S.R origin have the lowest level of ethnic identity, a finding that holds across all waves. Again, those of Southern European origin consistently occupy the middle ground between the two other groups. These

findings are consistent with previous literature on the identity of migrant-origin adolescents in Germany, and what would be expected given the theoretical associations between the macro-level determinants of identity experienced by those of different migrant origins in Germany and the identity formation of these individuals (Deaux 2006).

For changes between waves in both national and ethnic identity, change is usually modest, though with occasionally larger swings from one age to the next. What is perhaps more telling is the frequency with which change across waves fluctuates between negative and positive values. This finding is in line with the understanding that social-identity formation in adolescence is a stressful, tumultuous process, particularly for those of migrant origin who are presented with the task of establishing a sense of belonging in two, seemingly conflicting social identities.

Analytic Strategy

Conditional Multivariate Latent Growth Curve Model: In order to investigate the simultaneous growth of national and ethnic identity among Germany's migrant-origin adolescents, this study uses a conditional multivariate latent growth curve model within a structural equation modeling framework (Bollen and Curran 2006). In the measurement portion of the model, the latent intercept and latent slope of both national and ethnic identity are simultaneously estimated in order to create estimates of these latent parameters for the adolescents in the sample. As in all latent growth curve models, these parameters are estimated using the respondent-reported values to a set of repeated observed measures across time, which in this study are the items related to national and ethnic identity. Below is the formula for the measurement portion of the national-identity growth curve model.

$$n_{it} = \alpha_{n_i} + \lambda_{n_t}\beta_{n_i} + \varepsilon_{n_{it}}$$

Here, n_{it} is the estimated national identity of respondent *i* at time *t*, α_{n_i} is the estimated intercept of national identity for respondent *i* (i.e., the value of national identity at time *t=1*), $\lambda_{n_t}\beta_{n_i}$ is an interaction term between the effect of time at time *t* (λ_{n_t}) and respondent *i*'s latent slope of national identity (β_{n_i}),

and $\varepsilon_{n_{it}}$ is each respondent's time varying error. The parameters of α_{n_i} and β_{n_i} are further defined by the equations

$$\alpha_{n_i} = \mu_{\alpha_n} + \gamma_{\alpha_n} x_i + \zeta_{a_{n_i}}$$

$$\beta_{n_i} = \mu_{\beta_n} + \gamma_{\beta_n} x_i + \zeta_{\beta_{n_i}}$$

in which μ_{α_n} is the estimated mean intercept of national identity, γ_{α_n} is the coefficient for the effect of exogenous time-invariant variable *x* on the intercept of national identity, x_i is the value of *x* for respondent *i*, and $\zeta_{a_{n_i}}$ is the time-invariant error for the intercept of national identity for respondent *i*. All components of the equation for β_{n_i} have the same interpretation, but for the estimated latent slope of national identity for respondent *i*. The equations for the measurement model of the ethnic-identity growth curve model are identical, but with the subscript *e* replacing the subscript *n*.

For the current study, the focal time invariant variable, *x*, is generational status. Because respondents in the sample could be categorized into four, mutually exclusive generational statuses, the variable of generational status is included in the model as three dummy variables in which respondents are coded "1" if they are of that generational status and zero if they are not. The category of "1st generation" acts as the referent variable and thus is not included in the model. The expanded equations that include all exogenous generational-status variables are below, in which D_2-D_4 indicate the three generational-status variables.

$$\alpha_{n_i} = \mu_{\alpha_n} + \gamma_{\alpha_n D_2} x_{D_2 i} + \gamma_{\alpha_n D_3} x_{D_3 i} + \gamma_{\alpha_n D_4} x_{D_4 i} + \zeta_{a_{n_i}}$$

$$\beta_{n_i} = \mu_{\beta_n} + \gamma_{\beta_n D_2} x_{D_2 i} + \gamma_{\beta_n D_3} x_{D_3 i} + \gamma_{\beta_n D_4} x_{D_4 i} + \zeta_{\beta_{n_i}}$$

Identical equations exist for the ethnic-identity growth curve, however again with subscript *n* being replaced by subscript *e*.

In the structural portion of the model, the interrelations between the latent variables estimated in the measurement portion of the model can be further investigated. For the current study, the structural model is used to identify the extent to which these latent variables covary, in particular, the covariance

between the latent intercepts of national and ethnic identity (ψ_{α_n,α_e}) and the covariance between the slopes of national and ethnic identity (ψ_{β_n,β_e}). A latent growth curve model was utilized to account for the issues inherent to transitional models when analyzing multiple parallel processes (Verbeke et al. 2014). A full model of the multivariate growth curve model is shown in **Figure 3.1**[1,2]

Analysis of groups: In order to investigate the research questions of the current study, the conditional multivariate latent growth curve analyses use a multiple group analysis process similar to the one described by Bollen and Curran (2006). For this analysis, the previous equations are expanded so that all parameters of the measurement model are allowed to vary between groups, as shown below,

$$\alpha_{n_i}{}^{(g)} = \mu_{\alpha_n}{}^{(g)} + \gamma_{\alpha_n D_2} x_{D_2 i}{}^{(g)} + \gamma_{\alpha_n D_3} x_{D_3 i}{}^{(g)} + \gamma_{\alpha_n D_4} x_{D_4 i}{}^{(g)} + \zeta_{a_{n_i}}{}^{(g)}$$

$$\beta_{n_i}{}^{(g)} = \mu_{\beta_n}{}^{(g)} + \gamma_{\beta_n D_2} x_{D_2 i}{}^{(g)} + \gamma_{\beta_n D_3} x_{D_3 i}{}^{(g)} + \gamma_{\beta_n D_4} x_{D_4 i}{}^{(g)} + \zeta_{\beta_{n_i}}{}^{(g)}$$

In which the superscript g indicates national-origin status (here, Turkish, Eastern European/former U.S.S.R., or Southern European). Additionally, all factor loadings of the latent slope on the observed repeated measures, which determine the functional form of the growth curve model, can vary between groups ($\lambda_t{}^{(g)}$), as can all estimated covariance parameters of the structural model ($\psi_{\alpha_n,\alpha_e}{}^{(g)}$, etc.). The same group-analysis equations exist for the ethnic-identity growth curve, with subscript *n* being replaced with subscript *e*.

By fixing certain parameters to be zero or equal between groups, one can create a series of nested models, between which significant increases in model fit can be assessed using a chi-squared difference test. In these tests, the chi-squared value for the H_1 model, or the model with fewer degrees of freedom

[1] "Generational Status", though a set of three mutually exclusive dummy variables, is shown in **Figure 3.1** as a single variable for ease of interpretation and for conceptual purposes. Paths from Generational Status to the latent variables thus indicate three separate conditional effects, as is shown by the arrow labels.

[2] In addition, covariances are also estimated between the latent intercept and latent slope of the same latent identity growths (ex. ψ_{α_n,β_n}) and between latent intercepts and latent slopes across the two parallel growths (ex. ψ_{α_n,β_e}). Though these covariance parameters are estimated in all models of the current study, they have been excluded from this diagram, as they are not being explicitly tested. Also, all paths from the latent intercepts of α_n and α_e to the respective observed identity variables (n_{1-7}, e_{1-7}) are fixed at 1. Visual representations of these fixed values have also been excluded from the **Figure 3.1**.

(i.e., the model with more *freely estimated* parameters) is subtracted from the chi-squared value of the H_0 model, or the one with more degrees of freedom (i.e., the model with more *fixed* parameters), resulting in a chi-squared difference value. This chi-squared difference value then operates on the same distribution as a traditional chi-squared value, and the significance of the chi-squared difference value can be assessed using a degrees of freedom value that is equal to the degrees of freedom from the H_0 model subtracted from the degrees of freedom in the H_1 model. If the value of the chi-squared difference is significant given the difference in degrees of freedom, the H_1 model is a better fitting model than the more simplistic H_0 model. If the chi-squared difference value is not significant, then the H_0 and H_1 model are not significantly different and the H_0 is preferred, as it is more parsimonious.

Based on the research questions presented above, this study conducts three sets of nested tests to identify 1) the appropriate functional form of adolescent national- and ethnic-identity growth for each national-origin group, 2) the extent to which the latent intercepts and latent slopes of national and ethnic identity covary as a function of national-origin group, 3) the effect of generational status on the latent intercept and slope of national- and ethnic-identity growth, and how these effects differ between national-origin groups. All models being tested are derivations of the one shown in **Figure 3.1**, with different parameters being fixed at zero, held equal between national-origin groups, or freely estimated across groups as necessary.

The first set of these models tests the functional form of national- and ethnic-identity growth, i.e., the extent to which these trajectories exhibit non-linear growth across time, as well as the differences in the functional forms of these trajectories between national-origin groups. These models identify the most parsimonious values of $\lambda_{n_{1-7}}$, $\lambda_{e_{1-7}}$, α_n, α_e, β_n, β_e for all national-origin groups. In the first model (Model 1), values of $\lambda_{n_{1-7}}$ and $\lambda_{e_{1-7}}$ are held at 0.0, 0.1, 0.2, 0.3, 0.4, 0.5, and 0.6 respectively in all national-origin groups to test if the effect of time in the expression of these identities is purely linear[3],

[3] While the fixing of λ values at a number equal to *t-1* is traditional, using a value of (*t-1*)/10 can improve the computation of complex models (Muthén, 1/23/2009, http://www.statmodel.com/discussion/messages/14/195.html?1563129078)

while the values of α_n, α_e, β_n, β_e are held equal across the three national-origin groups. In the second model (Model 2), these λ values are allowed to be freely estimated and to differ between groups, with the exception of the first two in each identity curve, which are necessarily fixed at 0.0 and 0.1 to create a scale on which to base the other λ values (Bollen and Curran 2006). As in the previous model, α_n, α_e, β_n, β_e are fixed equal between national-origin groups. In the third model (Model 3), these λ values are once again freely estimated, however, the restriction that the latent intercept and latent slope are equal between national-origin groups is lifted, finally allowing for the parameters of α_n, α_e, β_n, and β_e to be freely estimated across national-origin groups. This third model acts as the H_1 model to which the other models are compared. All focal covariance parameters of the structural model and the generational effects on the latent intercepts and slopes are fixed at zero for all national-origin groups in this first model set.

After deducing the most parsimonious model from the first set of tests, the second set of models investigate the covariances between the latent intercepts and the latent slopes of national and ethnic identity, and the extent to which these covariances differs between national-origin groups. In the first of these models (Model 4), the covariance between α_n and α_e and the covariance between β_n and β_e are fixed at zero in all groups. In the second model (Model 5), these covariance parameters are estimated, but set equal between all national-origin groups. In the final model (Model 6), both the covariance between α_n and α_e and the covariance between β_n and β_e are freely estimated between the national-origin groups, allowing for differences in this covariance parameter across groups. In this set of tests, Model 6 acts as the H_1 model. In all models of the second model set, the generational effects on the latent intercepts and slopes remain fixed at zero for all groups.

In the final set of models, the effect of generational status on national and ethnic identity is assessed, as are the national-origin differences in this effect. Using the best, most parsimonious model from the previous sets of tests, the first model of this final set (Model 7) holds all generational-status effects on the latent intercept and latent slope of both national and ethnic identity at zero. The second model of this set (Model 8) allows the effect of each generational-status variable on the latent intercepts

and slopes to be non-zero, but holds the effect of each variable on these latent parameters to be equal between groups. Finally, in the last model of this set of nested models (Model 9), the fixing of the generational-status effects to be equal between groups is lifted and all generational effects are freely estimated across the national-origin groups.

All models are run in Mplus version 8.3 (Muthén and Muthén 2019) and all analyses are done using the weighted least-squares estimator to account for the categorical nature of the observed identity variables. A full description of this estimator can be found in the **Appendix D**. As a result of the necessary use of this estimator, the latent intercept parameter for national and ethnic identity is fixed at zero for the referent group (here, those of Turkish origin) and interpretation of coefficients can be understood as changes in units of standard deviation in each identity across all respondents in the sample. Additionally, the use of the weighted least squares estimator necessitates a modification of the chi-squared difference test to account for the non-continuous nature of the dependent variables (Asparouhov and Muthén 2010). While this modification allows for chi-squared difference tests that are identical in interpretation to chi-squared difference tests using normally-distributed continuous data, the value of the chi-squared difference statistic is not necessary the exact numerical difference between the chi-squared value of H_0 and H_1. Finally, all models control for gender, as the process of identity formation across adolescence can differ for males and females due to both social and biological differences (Kroger 2006). The effect of gender on the latent variables is freely estimated in all models across all groups, as are the latent variances of the intercept and slope for both identity growth curves (ψ_{α_n,α_n},ψ_{α_e,α_e},ψ_{β_n,β_n},ψ_{β_e,β_e}).

Results

Results from the first set of models can be found on **Table 3.4**. In this model set, the appropriate functional forms of national and ethnic identity were determined and differences in these functional forms between national-origin groups were analyzed. Model 3, the model in which the individual factor loadings, the latent intercepts, and the latent means are freely estimated across groups, acted as the H_1 model for this model set. In Model 1, all factor loadings of the latent slope on the observed identity

variables are fixed with a 0.1 unit increase between subsequent waves. Non-zero latent intercepts and non-zero latent slopes were estimated, but held equal between the three groups. All focal covariance parameters and generational effects are held at zero for all groups. Ultimately, this model is inferior to Model 3 in modeling national and ethnic identity for these migrant-origin adolescents, as a significant chi-squared difference test is found. In Model 2, these factor loadings are freely estimated across all groups while the fixed parameters of the previous model remain fixed. In contrast to Model 1, Model 2 exhibits a non-significant chi-squared difference test when compared to Model 3. This first set of tests indicates that while the effect of time leads to non-linear expressions of identity that are statistically different between these groups, the underlying growth of both national and ethnic identity are the same for all migrant-origin adolescents, regardless of national-origin status.

Table 3.5 displays the second set of analyses, which test the covariances of both the latent intercepts and latent slopes of national and ethnic identity, and the extent to which these covariances differ between national-origin groups. In this set of models, factor loadings are freely estimated, and the intercept and slope were fixed equal between all national origin groups, as was determined to be most appropriate in the previous set of models. Here, Model 6, the model in which the covariance parameters are freely estimated across all national-origin groups, is the H_1 model. In all models of this model set, generational effects remain fixed at zero for all groups. In the first model, Model 4, the covariances between the latent intercepts and the latent slopes are held at zero for all groups. Model 4 does not fit the data as well as Model 6, as shown by the significant chi-squared difference test for this model. In Model 5, these covariance parameters are allowed to be non-zero, but fixed equal between national-origin groups. As was the case for Model 4, Model 5 has a significantly worse model fit than Model 6, which is the best fitting model of the set. The results of this second set of tests indicate that, overall, these covariances are non-zero, and that the extent to which the latent intercepts and latent slopes of national and ethnic identity covary is a function of national origin.

For the final model set, **Table 3.6** presents the findings for the analysis of the generational effects on the intercept and slope of national and ethnic identity. All models in this model set utilize the best

fitting, most parsimonious parameter configurations as determined by the previous two model sets. The final model, Model 9, in which all generational effects are freely estimated across all national-origin groups, is the H_1 model for this final set of tests. In Model 7, all generational effects are fixed at zero, indicating no variation in the slope or intercept of both forms of identity as a function of generational status. When compared to Model 9, this model exhibits a significant chi-squared difference, indicating a worse fit. In Model 8, generational effects are estimated, but fixed equal between groups. This model tests whether the impact of generational status on national and ethnic identity is the same for all national-origin groups. Ultimately however, the chi-squared difference test for Model 8 is significant, indicating that, again, Model 9 is a better fitting model. Results from this final set of tests indicate that generational status is a determinant of national and ethnic identity, both in the beginning of and across adolescence, and that the effect of generational status differs across national-origin groups.

Table 3.7 displays all parameter estimates of interest in what was determined to be the best fitting, most parsimonious model overall (Model 9). Overall model fit of this model is good, with a chi-squared model fit significance value nearing .05 (p=.036), an RMSEA of .014, and both a CFI and a TLI above .98. The variances of the latent intercepts and latent slopes, which are freely estimated across the national-origin groups in all models, are also presented in this table.

First, across all groups, factor loadings for the latent slope on the observed identity variables ($\lambda_{n_{1-7}}$, $\lambda_{e_{1-7}}$) differ between national-origin groups, indicating heterogeneous effects of time in the expression of both identities. However, the underlying latent intercepts and slopes do not differ between groups. Because the latent intercepts (α_n, α_e) were, as a necessity of the weighted least squared estimator, fixed at zero in the referent Turkish group, a lack of significant differentiation in the latent intercepts between groups is indicated by an intercept of zero for all groups for both identities. For the slope parameters (β_n, β_e), also fixed even between national-origin groups, results show a positive latent growth in national identity over adolescence, but no significant underlying latent growth in ethnic identity.

Next, for the covariances between the latent variables, the intercepts of national and ethnic identity (ψ_{α_n,α_e}) negatively covary for the Eastern European/former U.S.S.R. group and the Southern European group, but not for the Turkish group, which exhibits no significant covariance between the two identity intercepts. The covariance of the two slope parameters (ψ_{β_n,β_e}) are also freely estimated across groups. While this parametrization of the slope covariance was found to improve the fit of the model over a parameterization in which this covariance was fixed, the final slope covariance parameters are not statistically significant for any group. Given the lack of a significant mean slope for ethnic identity and no significant variance parameters for either latent slopes in any national origin group, the lack of a significant slope covariance is not surprising, as there is no variation upon which the latent slopes can covary.

Finally, regarding the effects of generational status on both national and ethnic identity, generational status is shown to have associations with both the intercept and slope of national and ethnic identity, with the significance of these associations being a function of national origin. For those of Turkish origin, generational status does not modify any identity parameter, except for those in the third generation, who exhibit a decrease in the slope of ethnic identity compared to those of Turkish origin in the first generation. For those ancestrally from Eastern Europe or the former U.S.S.R., there are multiple associations between generational status and the intercept and slope parameters of both national and ethnic identity, with the exception of the slope of ethnic identity, which exhibits no associations with generational status. Finally, for those of Southern-European origin, being in the third generation is positively associated with the intercept of national identity, with membership in all later generations having a negative effect on the slope of national identity compared to the first generation. In this last group, these is no association between generational status and either the intercept or slope of ethnic identity.

The generational trajectories of national and ethnic identity, as estimated in Model 9, are presented graphicly by national origin in **Figures 3.2-3.4**. Because of the weighted least-squares

adjustment to account for the categorical nature of the observed identity variables, the y-axis indicates standard deviations from the mean of each identity. For those of Turkish-origin (**Figure 3.2**) all individuals begin adolescence at the same levels of national identity and show a steady increase in national identity over time, with a slight dip around age 19. For ethnic identity, these adolescents also begin at the same level of this social identity across all generations, however growth differs slightly as a function of generation. While those in the 1st, 2nd, and 2.5 generation do not experience change in ethnic identity over time, those in the third generation show a decline in ethnic identity with age. This overall decline, however, is characterized by a considerably non-linear trajectory.

For those ancestrally from Eastern Europe or the former U.S.S.R. (**Figure 3.3**), both forms of identity are strongly associated with generational status. For national identity, each generation further from initial migration exhibits a higher intercept. Across adolescence, positive growth in national identity is seen in the 1st and 2nd generation, while growth rates are essentially flat for those in the 2.5 and 3rd generation. For ethnic identity, a similar pattern occurs, but in the opposite direction. As generational status becomes further from initial migration, the intercept of ethnic identity consistently decreases. For all generations, there was no change in the slope of ethnic identity across adolescence.

Finally, for those in the Southern European group (**Figure 3.4**), the 1st, 2nd, and 2.5 generation all have the same intercept of national identity, while the 3rd generation begins adolescence with a significantly higher level of national identity. However, growth overtime in national identity appears to lessen with each subsequent generation, with the 1st generation seeing the highest rate of growth across adolescence, at least through age 19, the 2nd and 2.5 generation showing little to no positive growth in national identity, and the 3rd generation seeing a slight decline in national identity over adolescence. There are no generational effects on either the intercept or slope of ethnic identity, indicating that all generations begin adolescence at the same level of ethnic identity, and that this level of ethnic identity remains constant across the adolescent life course and into young adulthood.

As a final test of what was found to be the best fitting model, Model 9 is compared to a model in which all parameters are freely estimated across all groups. Results of the chi-squared difference test can

be found on **Table 3.8**. Here, the lack of significance in the chi-squared difference test indicates that this fully freely-estimated model is not significantly better at modeling longitudinal trends in national and ethnic identity than Model 9.

Discussion

The goal of this study was to identify the trajectories of growth in both national and ethnic identity among adolescents in Germany, and how development of these two identities differs between the national-origin groups that reside in Germany today. Additionally, this study advanced the current literature on dual-identity growth by investigating the extent to which these two identities covary, both at the beginning of adolescence and in their growth across the adolescent life course. Finally, this study tested how well the classic, straight-line theory of intergenerational social identity assimilation fit the German context, and how the applicability of this theory may be different between national origin-groups. By using a conditional multivariate latent growth curve model within a structural equation modeling framework, it was possible to simultaneously model national- and ethnic-identity growth trajectories, and using a group-comparison analysis, it was possible to test the extent to which the parameters of interest differed between national-origin groups.

In the first set of analyses identifying the functional form of these social identities, results show that all national-origin groups begin adolescence with equal levels of both national and ethnic identity, and that the latent rate of growth of these identities across adolescence is also the same for all national-origin groups. This is seen by the lack of improvement in model fit between a model in which the latent intercept and latent slope of both identities are fixed even between groups and one in which they are allowed to be freely estimated. However, the extent to which age moderates the effect of this growth in determining the observed expression of national and ethnic identity is different between groups. This non-linear moderating effect of age is shown by the improvement in model fit for a model in which the factor loadings at each time point are allowed to be freely estimated, versus a model in which these factor loadings are fixed, with a constant linear increase across age. Identity scholars have noted the internal conflict present during the formation of social identities in adolescence (Harter 2012; James 1892), and

the variations present in the growth of national and ethnic identity as a function of age fit well within this understanding of social identity during adolescence.

The next set of analyses focused on how the intercept and slope of these two identity trajectories covary. For the intercept, results show that there is a non-zero covariance between national and ethnic identity at the beginning of adolescence for migrant-origin youth in Germany, and that this covariance is different between members of different national-origin groups. For those of Turkish origin, the final model shows that there is a negative, but statically non-significant covariance between these two latent intercepts. This finding contrasts with Martiney et al. (2017) who found that national and ethnic identities among Turkish-German high schoolers exhibited a negative correlation. However, their sample was only of students in the lowest tier of the German secondary-schooling system, where students are the most likely to be from lower- or working-class backgrounds (Breen and Jonsson 2005; Maaz et al. 2008; Vleminckx and Smeeding 2001), and where research has found the process of "re-ethnicization" to be present (Skrobanek 2009). In my sample, which is representative of the entire socioeconomic spectrum of Turkish-origin adolescents across Germany, there appears to be no covariance between national and ethnic identity at age 15. For those ancestrally from Eastern Europe/former U.S.S.R. or Southern Europe, the covariance between national and ethnic identity is negative and significant. For these latter two groups, higher national identity at the beginning of adolescence is associated with lower ethnic identity at the beginning of adolescence, and vice versa.

This second set of tests also investigated the covariance of the slope parameters to better understand how national and ethnic identity "travel together" across adolescence (McArdle 1989). While previous research has investigated the cross-sectional covariance of national and ethnic identity ((Berry et al. 2006; Martiny et al. 2017; Verkuyten and Yildiz 2007; Verkuyten et al. 2012), this study advanced the current body of migrant dual-identity literature by further exploring the covariance of the *growth* in these identities across adolescence. Further research into how growth in national identity is associated with growth in ethnic identity has been called for in the migrant identity literature (Fleischman and Phalet 2016; Wiley et al. 2019). Ultimately, this study finds that the most appropriate model is one in which

covariance parameters between the two latent slopes are allowed to be freely estimated between groups, however this covariance parameter is not significant for any group. This lack of significant covariance is the result of the models showing no significant slope for ethnic identity and no significant variance for the slope of either identity. This lack of significant change across time in ethnic identity, coupled with the lack of significant variation in the growth of either identity across respondents in the sample, creates a situation in which the growth of ethnic identity has a constant value of zero in all cases. As a constant, it cannot "vary" with the slope of national identity. This result indicates that the trajectories of national and ethnic identity for migrant-origin adolescents in Germany are independent, in that those of migrant origin are able to maintain constant levels of attachment to their ethnic identity across the adolescent life course while at the same time experiencing increasing feelings of belonging to the mainstream German society. This finding mirrors the results of Fleishman and colleagues (2019) in their study of longitudinal dual-identity formation among a more limited sample of German adolescents of migrant origin.

For the final set of tests, in which the validity of classic straight-line assimilation theory was analyzed in regard to social-identity formation in Germany, final results indicate that the extent to which classic assimilation theory is applicable to the German context is a function of national-origin status. For those of Turkish origin, all generations begin adolescence at the same level of both national and ethnic identity, indicating that intergenerational identity assimilation has not occurred. However, by utilizing a longitudinal model, it was possible to also investigate trajectories in these identities across adolescence, and how these trajectories are a function of generational status. For those of Turkish origin, national-identity growth across adolescence is the same for all generations, with a modest, positive growth between the ages of 15 and 21. For ethnic identity, those of the Turkish third generation show a bumpy, yet overall downward trajectory in ethnic identity as they age through adolescence and into early adulthood. This generation, most distant from initial migration, appears to decline in attachment to their Turkish identity in a manner that mirrors the increase in national identity seen across adolescence for all Turkish-origin youth. This finding contrasts with qualitative research that has found later-generation Turkish-origin youth to develop a strong "reactive" Turkish identity (Celik 2015). While a classic

understanding of identity assimilation is not present at age 15 for this national-origin group, it appears that by the third generation, identity growth across adolescence exhibits a trajectory of heightened national identity coupled with a weakening ethnic identity. For any Turkish-origin adolescent with at least one foreign-born parent (1st, 2nd, or 2.5), this decline in ethnic identity is not seen.

In contrast, the identity trajectories of those from Eastern Europe or the former U.S.S.R clearly exhibit an intergenerational change in line with a classic notion of identity assimilation. Each subsequent generation begins adolescence with a higher level of national identity and a lower level of ethnic identity than the generation prior. Across adolescence, feelings of belonging to the German society increase steadily, at least for those with two foreign-born parents (1st and 2nd generation). Ethnic identity remains constant across adolescence, indicating that change in this social identity is a function of generation and not age. Given the fact that the German government has been aggressive in ensuring the legal integration of many migrants from Eastern Europe and the former U.S.S.R. through citizenship acquisition, and the benefit this legal situation has had in allowing for upward mobility within Germany (Green 2012), the finding that consistent identity assimilation occurs across subsequent generations is not surprising.

Finally, for those with families from Southern Europe, intergenerational trends differ from both the Turkish group and the Eastern European/former U.S.S.R group. For national identity, the 1st, 2nd, and 2.5 generations all begin adolescence with the same level of this identity, while those in the 3rd generation enter adolescence with higher feelings of belonging to the national German society. This finding provides evidence of national identity assimilation across generations, however in contrast to the Eastern European/former U.S.S.R group, this increase in baseline national identity does not occur until the 3rd generation. Additionally, there is not a decrease in the intercept of ethnic identity across generations, as was seen in the Eastern European/former U.S.S.R. group. Classic theories of intergenerational identity assimilation do not appear to be applicable to this national-origin grouping, though the generation furthest from initial migration does begin adolescence with greater feelings of belonging to Germany than those closer to initial migration. Across adolescence, growth in national identity becomes weaker for each successive generation, with those in the third generation showing a slight decline in national identity

between age 15 and 21. It appears that as later generations age through adolescence, their increased German cultural competency does not translate into a positive growth in their German identity. This may be the result of increasing social awareness with age that despite their high levels of cultural competency, gained through multiple generations within the country of Germany, they remain non-German in a nation in which social belonging is largely a function of German ethnicity. However, the lack of generational effects on either the intercept or slope of ethnic identity indicates that feelings of cultural belonging to their family's sending nation does not decline over generations or across the adolescent life course.

Limitations

As is the case in all studies, this study has its limitations. First, while it was possible to investigate the trajectories of national and ethnic identity, the categorical nature of the observed, dependent identity variables necessitated the use of the weighted least squares estimator. Ultimately, this estimator scaled the identity variables in such a way that it is not necessarily intuitive as to how these transformed values, in units of standard deviations, map on to the actual ordinal Likert-scale variables from which they were transformed. However, given that the main focus of the study was to investigate the functional forms of national and ethnic identity trajectories, the way in which these trajectories are associated with one another across the life course, and the extent to which these trajectories differ as a function of national origin and generational status, the use of an estimator is not problematic, as the actual value of the identity variables are less important when investigating the shape of the trajectories or the relative differences in trajectories between groups. While, technically, it would have been possible to treat the ordinal categorical identity variables as continuous, given the small number of categories (4) this would have negative implications for the model (Salari et al. 2018). Further study of dual-identity formation should utilize data that measures identity on a more continuous scale or utilizes multiple measures of identity that can be combined into a continuous index, either through summing or factor scoring. However, the data used in the current study are the only currently available to study longitudinal, dual-identity formation in adolescence in a way that is applicable to the entire German nation.

Another limitation is that respondents in the current study were first surveyed at age 15. While this age is still well within adolescence, adolescence is often considered to start at the onset of puberty, which generally occurs slightly earlier in the life course (Kroger 2006). Because of this, it is possible that the development of social identities is occurring before respondents entered into the CILS4EU-DE sample, as individuals are likely becoming aware of their in-group and out-group orientations before the age of 15. However, results of the current study found that the intercept of both the national and ethnic identity trajectories were not significantly different between national-origin groups, indicating that the extent to which national and ethnic social identities had formed by age 15 was not a function of national origin. Ultimately though, as new data sources become available that include respondents earlier in the life course, identity trajectories modeled at the beginning of puberty, or even in the pre-adolescent phase, would add to of the current study.

Finally, there are two data limitation to address. First, while it is likely that a large portion of the Eastern European/former U.S.S.R. group are from the families of ethnic-German return migrants, the data do not make it possible to exactly distinguish ethnic-German return families seeking birthright German citizenship from those families of Eastern-European ethnicity that have migrated to Germany for other reasons. While adolescents from both of these family types have a migration background, those of German-ethnicity may have different understandings of their social identity than those of migrant origin but of non-German ethnicity. Second, the CILS4EU-DE sample included a relatively small number of third-generation Turkish-origin adolescents (28 at Wave 1). However, given the theoretical importance of making distinctions between the 2.5 and third generations when studying the effect of generational status among migrant-origin adolescents, primarily due to the presence or absence of a parent born in the sending nation, it was necessary to separate these youth as a distinct generational group within the analysis. As the third generation begins to make up a larger portion of the Turkish-German population, further research will need to be done to replicate the analyses done here and build of the findings of this chapter.

Conclusion

Ultimately, the social-identity formation of a migrant-origin adolescent has implications for their well-being. For migrant-origin adolescents, development of both a strong national and ethnic identity has been found to be the most advantageous for both their sociocultural adaptation and their mental health (Berry et al. 2006). In Germany specifically, strong dual identification has been linked to increased happiness and decreased depression (Schmitz and Berry 2011), as well as increased cognitive well-being and positive affect (Koydemir 2013). And while maintenance of two social identities can be cognitively challenging and stress-inducing, particularly when differences in identity lead to potential conflict in the behaviors of these migrant-origin adolescents (Hirsh and Kang 2016), positive feelings of belonging to both a national and ethnic identity are generally advantageous for those of migrant origin. Overall, my findings indicate that maintenance of ethnic identity occurs for most migrant-origin youth throughout the adolescent life course, whatever level of ethnic identity that may be. This maintenance of ethnic identity is often accompanied by an overall increase in German identity with age, indicating that these adolescents are able to develop some form of both identities during this important developmental period of the life course.

However, the generally positive findings of the current study may not hold for migrant-origin Germans currently aging through adolescence. Rising anti-immigrant sentiment since the 2015 refugee crisis likely is having a negative impact on the national-identity formation for those of non-German ethnicity, as the social representation of migrants in a society is a strong determinant of social-identity development (Deaux 2006). Additionally, many politicians in Germany, and throughout Europe, have taken the stance that multi-cultural policies, those that would most facilitate dual-identity formation among migrant-origin adolescents, have the seemingly negative consequence of leading to “parallel” societies within their nations (Koopmans 2013). This has led to the institution of laws that actively seek to assimilate migrants at the expense of cultural pluralism (Yurdakul and Korteweg 2013). However, as research on identity formation in migrant-origin adolescents would suggest, successful multi-cultural integration policies that allow for retention of cultural identity, while at the same time furthering the

inclusion of migrants into the institutions and social spheres of the national majority, would have the most positive impacts on the lives and well-beings of Germany's many migrant-origin adolescents.

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Table 3.1: Weighted Descriptive Statistics of the Analytic Sample (Prop.)

	Turk	East	South
Generational Status			
First	.10	.21	.13
Second	.66	.26	.20
2.5	.20	.14	.36
Third	.03	.38	.31
n	859	695	291

Table 3.2: "How strongly do you feel German?" (0-3)

	Age	15	16	17	18	19	20	21
Turk	Mean	1.46	1.53	1.73	1.55	1.44	1.98	1.80
	$t\text{-}t_{(-1)}$	-	0.08	0.20	-0.18	-0.11	0.54	-0.18
East	Mean	2.21	2.32	2.40	2.24	2.23	2.39	2.24
	$t\text{-}t_{(-1)}$	-	0.11	0.08	-0.16	-0.01	0.15	-0.14
South	Mean	1.65	1.90	2.03	1.81	1.85	2.09	1.93
	$t\text{-}t_{(-1)}$	-	0.25	0.14	-0.23	0.05	0.24	-0.16

Table 3.3: "How strongly do you feel you belong to [ethnic group]?" (0-3)

	Age	15	16	17	18	19	20	21
Turk	Mean	1.72	1.94	1.69	1.82	1.87	2.09	1.83
	$t\text{-}t_{(-1)}$	-	0.22	-0.25	0.13	0.05	0.21	-0.25
East	Mean	0.85	0.94	0.93	1.12	0.89	0.93	1.04
	$t\text{-}t_{(-1)}$	-	0.09	-0.01	0.19	-0.22	0.04	0.11
South	Mean	1.38	1.57	1.58	1.60	1.44	1.48	1.54
	$t\text{-}t_{(-1)}$	-	0.19	0.01	0.01	-0.16	0.04	0.06

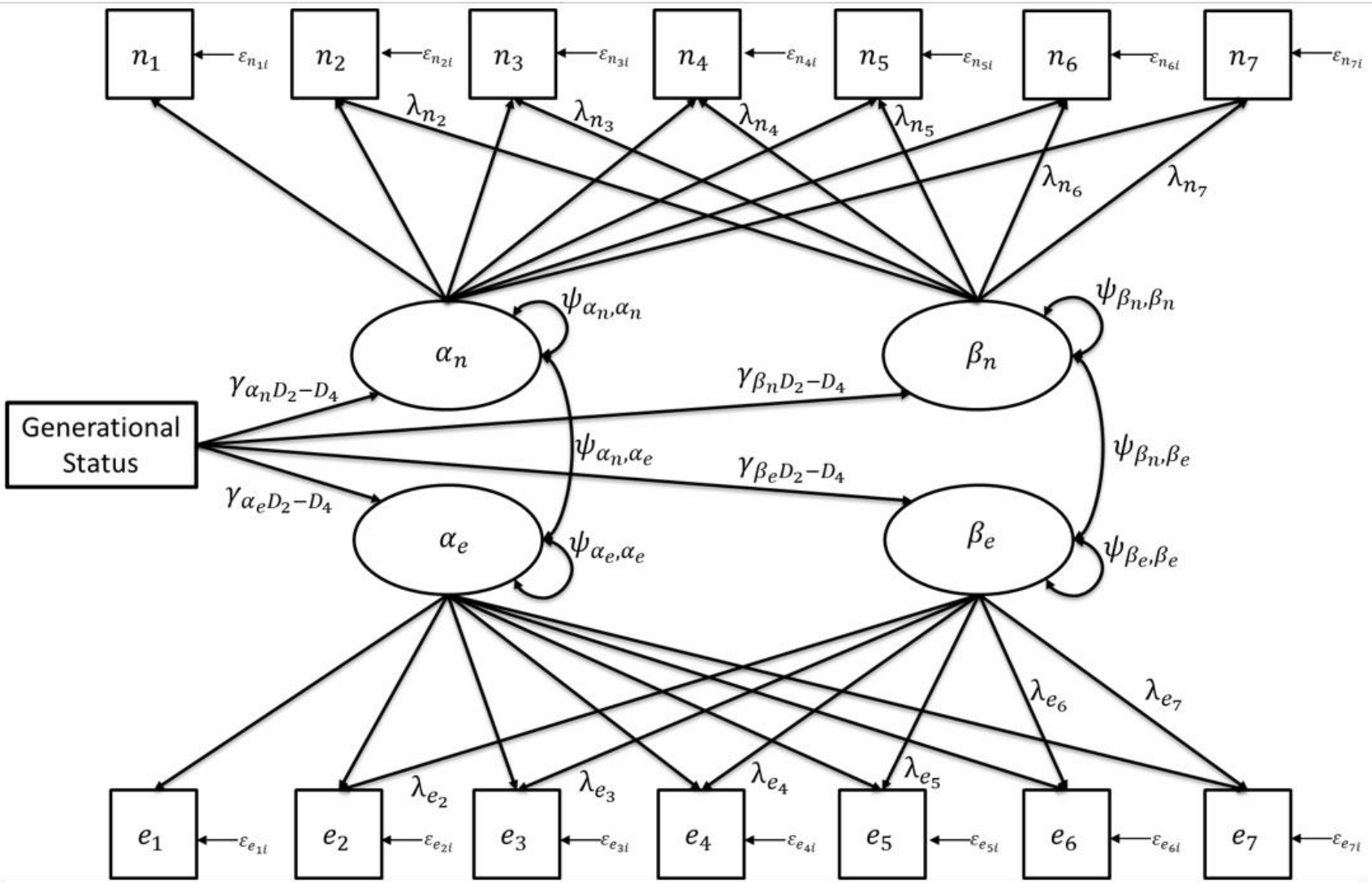

Figure 3.1 – Latent growth curve model

Table 3.4: Analysis of the Functional Form of Adolescent National and Ethnic Identity Trajectories

	Model 1			Model 2			Model 3 (H_1)		
Model Parameters	Turk	East	South	Turk	East	South	Turk	East	South
Factor Loadings									
λ_{n_1}	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
λ_{n_2}	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
λ_{n_3}	0.200	0.200	0.200	0.151	0.127	0.179	0.180	0.130	0.181
λ_{n_4}	0.300	0.300	0.300	0.172	0.159	0.363	0.200	0.166	0.200
λ_{n_5}	0.400	0.400	0.400	0.138	0.159	0.641	0.154	0.166	0.290
λ_{n_6}	0.500	0.500	0.500	0.345	0.204	0.551	0.377	0.207	0.369
λ_{n_7}	0.600	0.600	0.600	0.414	0.183	0.516	0.454	0.193	0.271
λ_{e_1}	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
λ_{e_2}	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
λ_{e_3}	0.200	0.200	0.200	0.076	0.107	0.132	0.053	0.121	0.074
λ_{e_4}	0.300	0.300	0.300	0.123	0.103	0.092	0.124	0.132	0.110
λ_{e_5}	0.400	0.400	0.400	0.089	0.052	0.033	0.056	0.062	0.203
λ_{e_6}	0.500	0.500	0.500	0.130	0.011	0.014	0.166	0.016	0.406
λ_{e_7}	0.600	0.600	0.600	0.118	0.013	0.010	0.078	0.017	0.805
Latent Intercepts									
α_n	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.320	0.079
α_e	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.230	-0.171
Latent Slopes									
β_n	1.373*	1.373*	1.373*	3.181*	3.181*	3.181*	3.875	2.590*	7.255*
β_e	1.023*	1.023*	1.023*	-0.977	-0.977	-0.977	0.996	-0.282	4.974*
Latent Covariances									
(Fixed a zero)	-	-	-	-	-	-	-	-	-
Generational Effects									
(Fixed at zero)	-	-	-	-	-	-	-	-	-
Fit Statistics									
Chi^2(df)		1052.60(483)*			1007.40(453)*			1087.02(445)*	
CFI/TLI		.879/.889			.882/.885			.863/.865	
Chi^2 Diff. vs. Model 3		82.40(38)*			$2.26(8)^{ns}$			na	

**=p<.05*

Table 3.5: Analysis of Covariance between the Latent Intercepts and Latent Slopes of National and Ethnic Identity

	Model 4			Model 5			Model 6 (H_1)		
Model Parameters	Turk	East	South	Turk	East	South	Turk	East	South
Latent Covariances									
ψ_{α_n,α_e}	0.000	0.000	0.000	-0.108*	-0.108*	-0.108*	-0.104*	-0.247*	-0.241*
ψ_{β_n,β_e}	0.000	0.000	0.000	-0.198	-0.198	-0.198	0.711	-0.955	-0.251
Generational Effects									
(Fixed at zero)	-	-	-	-	-	-	-	-	-
Fit Statistics									
Chi^2(df)		1007.40(453)*			919.17(451)*			923.50(447)*	
CFI/TLI		.882/.885			.900/.903			.899/.899	
Chi^2 Diff. Test vs. Model 6		160.92(6)*			9.522(4)*			na	

*=$p<.05$

Table 3.6: Analysis of Generational Effects on the Latent Intercepts and Latent Slopes of National and Ethnic Identity

	Model 7			Model 8			Model 9 (H_1)		
Model Parameters	Turk	East	South	Turk	East	South	Turk	East	South
Generational Effects on National Identity									
$\gamma_{\alpha_n D_1}$ (Gen 1→ α_n)	-	-	-	-	-	-	-	-	-
$\gamma_{\alpha_n D_2}$ (Gen 2→ α_n)	0.000	0.000	0.000	0.319*	0.319*	0.319*	0.015	0.437*	-0.052
$\gamma_{\alpha_n D_3}$ (Gen 2.5→ α_n)	0.000	0.000	0.000	0.505*	0.505*	0.505*	0.217	0.873*	0.116
$\gamma_{\alpha_n D_4}$ (Gen 3→ α_n)	0.000	0.000	0.000	0.746*	0.746*	0.746*	0.118	1.135*	0.515*
$\gamma_{\beta_n D_1}$ (Gen 1→ β_n)	-	-	-	-	-	-	-	-	-
$\gamma_{\beta_n D_2}$ (Gen 2→ β_n)	0.000	0.000	0.000	-0.878	-0.878	-0.878	-0.432	-0.500	-1.234*
$\gamma_{\beta_n D_3}$ (Gen 2.5→ β_n)	0.000	0.000	0.000	-1.212	-1.212	-1.212	-0.737	-2.029*	-1.525*
$\gamma_{\beta_n D_4}$ (Gen 3→ β_n)	0.000	0.000	0.000	-1.278	-1.278	-1.278	-0.187	-1.741*	-1.783*
Generational Effects on Ethnic Identity									
$\gamma_{\alpha_e D_1}$ (Gen 1→ α_e)	-	-	-	-	-	-	-	-	-
$\gamma_{\alpha_e D_2}$ (Gen 2→ α_e)	0.000	0.000	0.000	-0.048	-0.048	-0.048	0.306	-0.235*	0.313
$\gamma_{\alpha_e D_3}$ (Gen 2.5→ α_e)	0.000	0.000	0.000	-0.210*	-0.210*	-0.210*	-0.026	-0.837*	0.072
$\gamma_{\alpha_e D_4}$ (Gen 3→ α_e)	0.000	0.000	0.000	-0.497*	-0.497*	-0.497*	-0.046	-1.546*	-0.168
$\gamma_{\beta_e D_1}$ (Gen 1→ β_e)	-	-	-	-	-	-	-	-	-
$\gamma_{\beta_e D_2}$ (Gen 2→ β_e)	0.000	0.000	0.000	-0.052	-0.052	-0.052	-0.909	-0.120	-0.233
$\gamma_{\beta_e D_3}$ (Gen 2.5→ β_e)	0.000	0.000	0.000	0.004	0.004	0.004	0.313	0.102	-0.147
$\gamma_{\beta_e D_4}$ (Gen 3→ β_e)	0.000	0.000	0.000	0.056	0.056	0.056	-6.511*	0.182	-0.155
Fit Statistics									
Chi^2(df)		923.50(447)*			524.21(435)*			464.14(411)*	
CFI/TLI		.899/.899			.981/.981			.989/.988	
Chi^2 Diff. Test vs. Model 12		348.04(36)*			87.96(24)*			na	

*=$p<.05$

Table 3.7: Full Results from Model 9

Model Parameters	Turk	East	South
Factor Loadings			
λ_{n_1}	0.000	0.000	0.000
λ_{n_2}	0.100	0.100	0.100
λ_{n_3}	0.186	0.121	0.133
λ_{n_4}	0.243	0.213	0.476
λ_{n_5}	0.204	0.197	0.678
λ_{n_6}	0.450	0.406	0.665
λ_{n_7}	0.517	0.263	0.585
λ_{e_1}	0.000	0.000	0.000
λ_{e_2}	0.100	0.100	0.100
λ_{e_3}	0.087	0.145	-0.360
λ_{e_4}	0.151	0.224	0.565
λ_{e_5}	0.140	1.140	2.267
λ_{e_6}	0.193	1.865	3.306
λ_{e_7}	0.196	1.871	3.556
Latent Intercepts			
α_n	0.000	0.000	0.000
α_e	0.000	0.000	0.000
Latent Slopes			
β_n	1.744*	1.744*	1.744*
β_e	0.140	0.140	0.140
Latent Covariances			
ψ_{α_n,α_e}	-0.090	-0.303*	-0.302*
ψ_{β_n,β_e}	-0.894	-0.268	-0.065
Latent Variances			
ψ_{α_n,α_n}	0.556*	0.382*	0.472*
ψ_{α_e,α_e}	0.353*	0.527*	0.357*
ψ_{β_n,β_n}	1.825	2.914	0.353
ψ_{β_e,β_e}	1.334	0.077	0.022
Gen. on National Identity			
$\gamma_{\alpha_n D_1}$ (Gen 1→ α_n)	-	-	-
$\gamma_{\alpha_n D_2}$ (Gen 2→ α_n)	0.015	0.437*	-0.052
$\gamma_{\alpha_n D_3}$ (Gen 2.5→ α_n)	0.217	0.873*	0.116
$\gamma_{\alpha_n D_4}$ (Gen 3→ α_n)	0.118	1.135*	0.515*
$\gamma_{\beta_n D_1}$ (Gen 1→ β_n)	-	-	-
$\gamma_{\beta_n D_2}$ (Gen 2→ β_n)	-0.432	-0.500	-1.234*
$\gamma_{\beta_n D_3}$ (Gen 2.5→ β_n)	-0.737	-2.029*	-1.525*
$\gamma_{\beta_n D_4}$ (Gen 3→ β_n)	-0.187	-1.741*	-1.783*
Gen. on Ethnic Identity			
$\gamma_{\alpha_e D_1}$ (Gen 1→ α_e)	-	-	-
$\gamma_{\alpha_e D_2}$ (Gen 2→ α_e)	0.306	-0.235*	0.313

Table 3.7, *cont.*

$\gamma_{\alpha_e D_3}$ (Gen 2.5→ α_e)	-0.026	-0.837*	0.072
$\gamma_{\alpha_e D_4}$ (Gen 3→ α_e)	-0.046	-1.546*	-0.168
$\gamma_{\beta_e D_1}$ (Gen 1→ β_e)	-	-	-
$\gamma_{\beta_e D_2}$ (Gen 2→ β_e)	-0.909	-0.120	-0.233
$\gamma_{\beta_e D_3}$ (Gen 2.5→ β_e)	0.313	0.102	-0.147
$\gamma_{\beta_e D_4}$ (Gen 3→ β_e)	-6.511*	0.182	-0.155
Fit Statistics			
Chi^2(df)			464.14(411)*
RMSEA (*90% conf. int*)			.014 (*.004-.021*)
CFI/TLI			.989/.988

*=*p<.05*

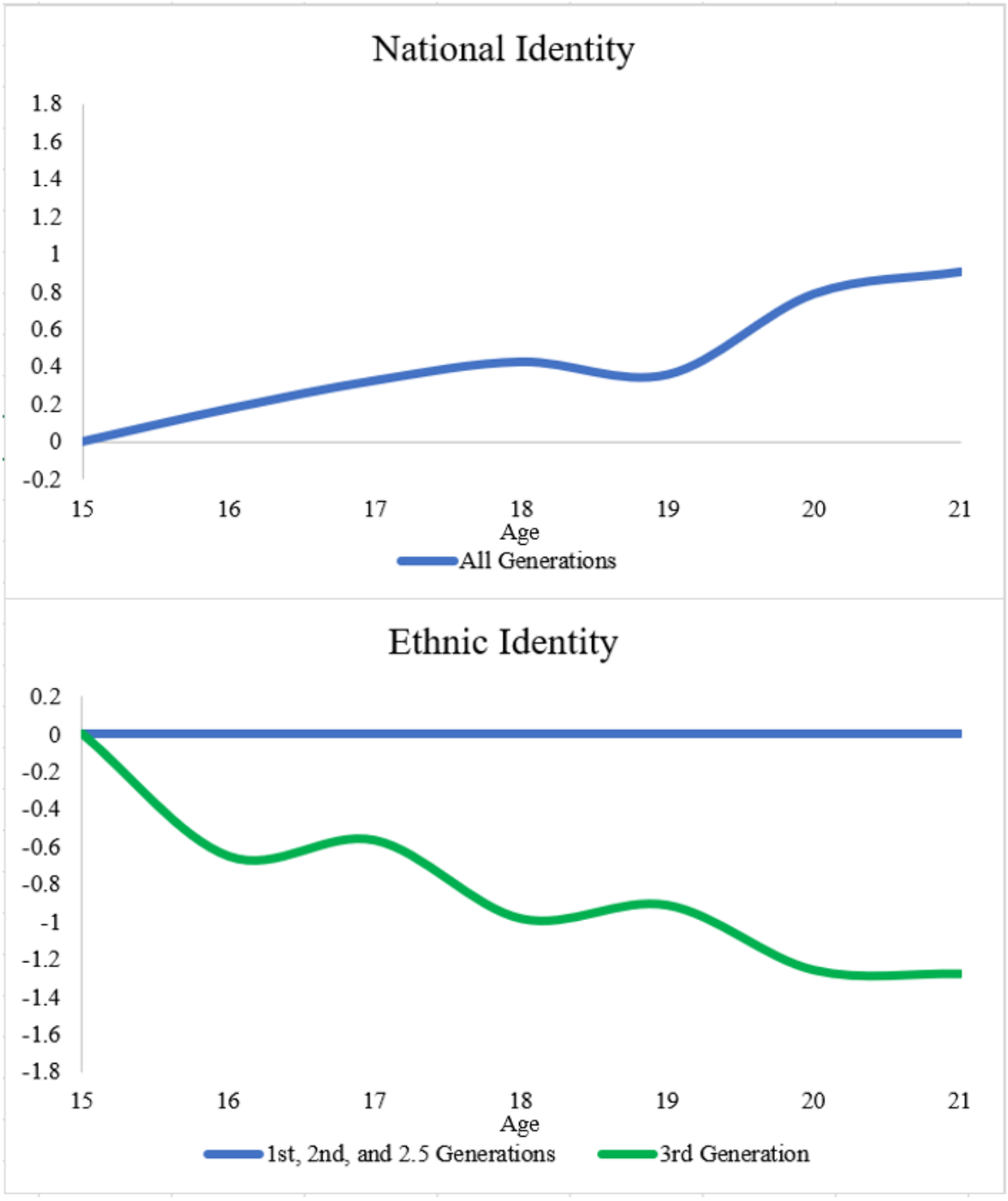

Figure 3.2 – Turkish adolescents

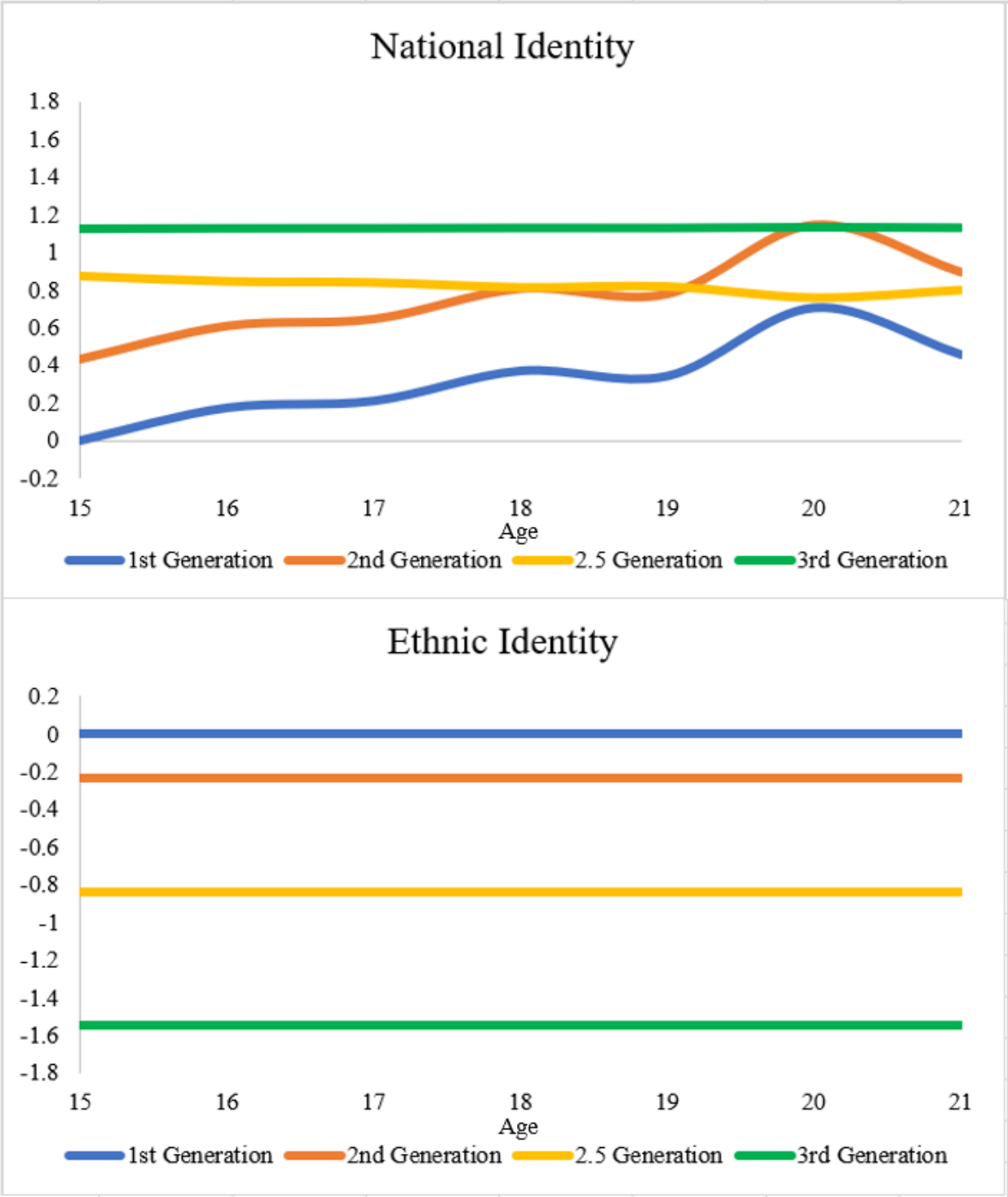

Figure 3.3 - Eastern European/Former U.S.S.R adolescents

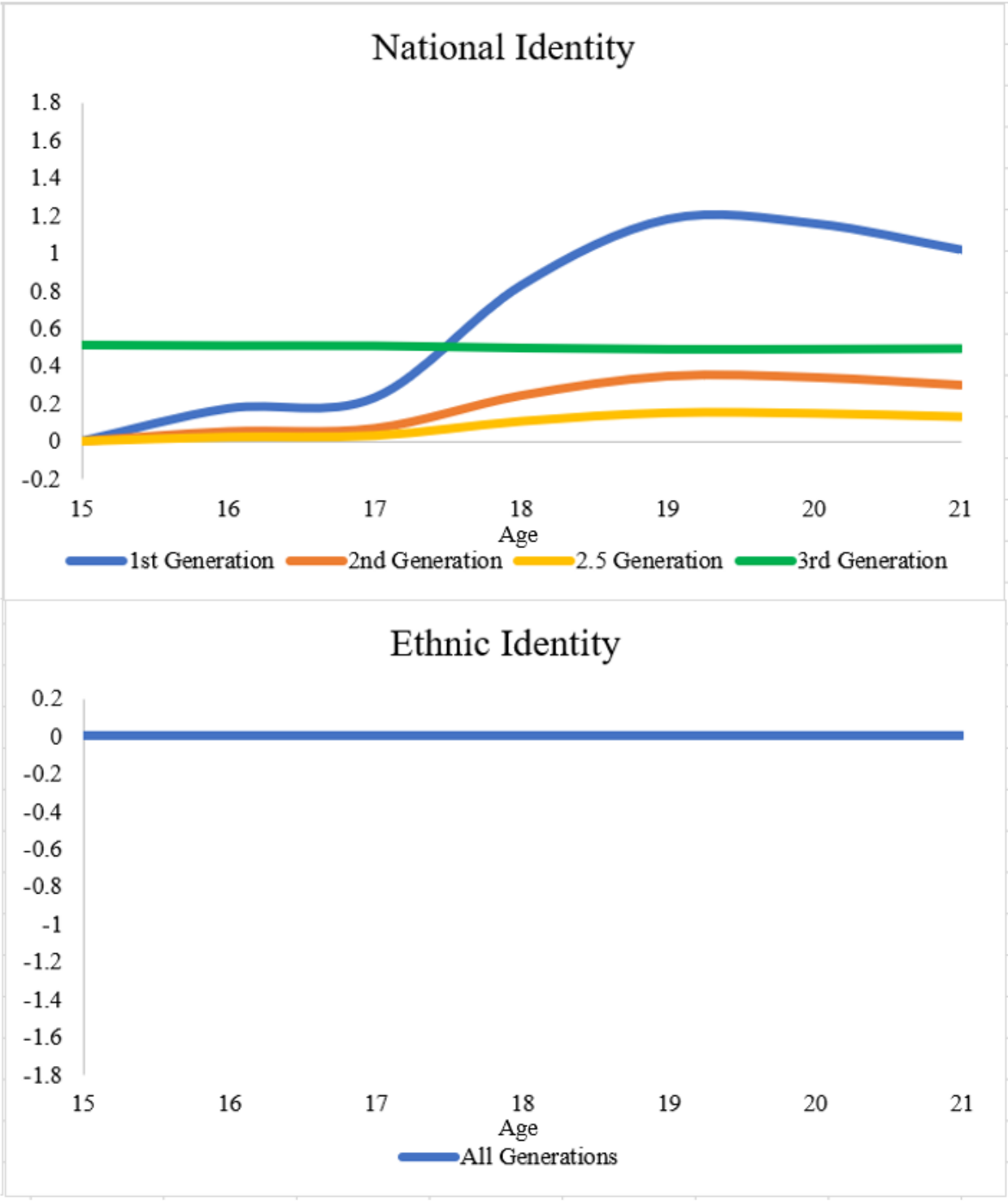

Figure 3.4 – Southern European adolescents

Table 3.8: Chi-squared Difference Test between Model 9 and a Model with no Fixed Parameters

	Model 9	Model with no fixed parameters
Fit Statistics		
Chi^2(df)	464.14(411)*	461.34(403)*
CFI/TLI	.989/.988	.988/.986
Chi^2 Diff. Test	$8.08(8)^{ns}$	na

**=p<.05*

CHAPTER 4: WHO SHOULD BE ALLOWED IN?: UNDERSTANDING NATIVE-GERMAN ATTITUDES TOWARDS REFUGEE LEGITIMACY.

Introduction

Migration is not a new phenomenon in Germany, however the face of migration in the country has shifted dramatically in recent years due to the entry of hundreds of thousands of forced refugee migrants seeking asylum since 2015, the vast majority of whom are escaping violence in the Middle East due to the Syrian Civil War and unrest in the nations of Iraq and Afghanistan (Federal Office for Migration and Refugees 2018). In September of 2015, German Chancellor Angel Merkel began an open-door policy of accepting these refugee migrants, many of whom were already waiting relocation in Hungary and other Southern-EU nations. Merkel's open-door policy also lifted the 1993 amendment to Article 16 of the Basic Law stating asylum seekers must register for asylum in the first EU nation they enter, allowing these migrants to instead register for asylum in Germany. Though the German government almost immediately began to curtail this policy once these refugee migrants begin entering Germany, 441,899 asylum seekers had come to Germany by the end of 2015 (Federal Office for Migration and Refugees 2018). Refugee migrants continued to enter Germany through 2016 with an additional 722,370 refugee migrants entering in that year (Federal Office for Migration and Refugees 2018). By December of 2016, 1.6 million refugees from the Middle East had applied for protection and were awaiting asylum decisions in Germany (Eberle 2019). Today, these refugee migrants make up 16 percent of the foreign-born population in Germany (Statisticshe Bundesamt 2019).

Though the number of refugees entering Germany has decreased considerably since the height of the refugee crisis, with slightly less than 200,000 asylum applicants entering Germany in 2018, the effect of this acute shock to the German population will shape the way in which the native population views immigration and their understandings of what defines refugee migration for the foreseeable future. The

impact of the crisis on native-German attitudes towards refugee migration will be most pronounced for the members of the population who were entering adulthood during this period of dramatic refugee in-flow. Adolescence is associated with the crystallization of racialized and prejudicial attitudes (Raabe and Beelmann 2011), attitudes which only become more stable as individuals age through the life course (Henry and Sears 2009). The stability of attitudes first formed in adolescence across the adult life course has also been found when looking specifically at attitudes towards immigration policy (Schotte and Winkler 2014). Thus, studying native-German attitudes towards refugee migration among those individuals transitioning through adolescence and into young adulthood during the refugee crisis is particularly important.

While legal precedent exists to determine if a migrant is a refugee, and therefore able to make legitimate claims for protection from the receiving nation (Yarris and Castaneda 2015), members of the native population are free to form their own opinions regarding which push factors of refugee migration are considered legitimate claims for refugee status. As a result, larger social dialogues on refugee legitimacy may not match the established legal definitions of legitimacy. Ultimately, the understood legitimacy of refugees among the native-population has implications for how refugees are treated in the receiving nation, as the most important factor in determining refugee acceptance is whether or not the native population determines their entry to be legitimate (Czymara and Schmidt-Catran 2016, 2017; von Hermanni and Neumann 2019). How the native population of a refugee-receiving society accepts refugee populations can in turn have implications for both the immigration and integration law that is adopted within the society, particularly if the nation, like Germany, has a democratic form of governance (Bourhis et al. 1997; FitzGerald and Cook-Martin 2014). The resulting native response to refugee migration can thus have ramifications for not only refugee populations, but for all potential migrants seeking entry into Germany and those of migrant origin already in the country (Bourhis et al. 1997).

Recognizing the impact native attitudes towards refugee legitimacy can have on the lives of both refugees and non-refugee migrants in Germany, the current study will investigate how native-German young adults understand different push factors of refugee migration to be legitimate reasons for refugee

entry. It will do this by conceptually grouping these young adults into "representational profiles" based on their attitudes towards refugee entry (Moscovici 1963). These representational profiles inherently measure the different social representations that exist in the German young-adult population towards refugee entry, i.e., the groupings of attitudes present regarding this particular type of immigration. After uncovering these representational profiles, this study will investigate how measures of socioeconomic, social network, and attitudinal variables are associated with these profiles in order to understand how different segments of the population differ in how they define the legitimacy of a refugee. Investigating the associations between attitudes towards refugee legitimacy and these additional social variables will shed light on how heterogeneities in the understandings of refugee legitimacy are associated with heterogeneities in the native-German young-adult populations itself. To do this, this study will carry out the three-step Latent Class Analysis procedure as described by Sibley and Liu (2013).

Background

Refugee "Legitimacy" in Germany

To date, researchers have utilized three main methods to gauge native-German attitudes towards refugee legitimacy; analysis of popular media, polling, and experiment-style studies using hypothetical refugee vignettes. The need to study attitudes towards refugees specifically is necessary, as research has found that native populations form attitudes towards refugee populations in a different manner than attitudes towards immigrants more generally (Ford et al. 2012; Hatton 2016). Positive or negative attitudes towards refugees are primarily focused around native attitudes towards the legitimacy of refugee migrants (Dempster and Hargrave 2017). Thus, while the traditional factors that influence native attitudes towards immigrants for generally, such as concerns about the economic, cultural, and public safety impacts of immigration, may still be present in the formation of attitudes towards refugees, information regarding the reason a refugee was allowed into a country is likely the preeminent factor in determining native attitudes. This is particularly true in Germany, where, historically, very liberal asylum laws have defined who was considered a refugee (Göktürk et al. 2007). These liberal refugee acceptance laws have

in turn become part of the national consciousness, and indeed, a substantial portion of the German population sees the acceptance of refugees to be a "national obligation", despite their fears that these refugee migrants will fail to integrate into the native German society (Dempster and Hargrave 2017).

Looking at the research to date on native attitudes towards refugees in Germany, studies of the popular media that was created during the refugee crisis have noted that the public discourse in Germany (and Europe as a whole) has taken on a sort of "deserving refugee" vs. "underserving immigrant" dichotomy, in which some who enter Germany are seen as in legitimate need of help, while others are considered illegitimate refugees who are not worthy of Germany's protection (Holmes and Castaneda 2016; Rea et al. 2019). This research has found that much of the understanding of refugee "deservedness" is a function of the supposed agency that these migrants have in their own displacement. In an analysis of German newspapers between March of 2015 and March of 2016, corresponding to the height of refugee entry into Germany, Vollmer and Karakayali (2017) found that media portrayals of different refugee crisis-related events created an understanding of deservingness categorized into two larger tropes, the "woman and the child" fleeing their nation against their will, and the "man" who came to Germany for economic gain and is considered an illegitimate asylum seeker. Often, they note, the term "asylum shopper" is used when discussing the types of refugees seen as illegitimate. The idea of the "shopper" again alludes to the importance of agency in a migrant's migration when defining legitimacy. In an analysis of Al-Jazeera's coverage of the refugee crisis, Kyriakides (2017) found that legitimizing the category of "refugee" required proof of some kind of victimhood on the part of the migrant, though what justified victimhood was up to the majority European society to determine, and what was considered legitimate victimhood was up for considerable debate over the course of the refugee crisis. This understanding of Middle Eastern and North African peoples as "victims", argues Kyraikdes, played on classic colonial notions of the Europeans, in which the European societies were seen as the "saviors" of the non-European, non-White populations around the world. The idea that refugees need to prove legitimate victimhood has also been found in research that has looked at the European and Arabic press more generally (Holzberg et al. 2018). Across all studies, one theme that continued to appear was the idea

that victimhood and legitimate refugee status could not be borne of economic need nor a desire to improve one's life economically.

Outside of these important media-analysis studies, some preliminary polling research has been done on this topic. Though it is purely descriptive in nature, these polling data show that opinions regarding "legitimacy" vary considerably across the German population. A recent poll by the Pew Research Center found that 82 percent of Germans supported refugee entry if the refugee was fleeing violence and war, with 16 percent opposing the entry of these migrants (Connor 2018). Another poll (Gerhards et al. 2016), also of the general German population, found that the highest support for refugee entry was for those that were fleeing human rights abuses in their home country (74 percent). Support was also high for those fleeing religious persecution, but only if they were Christian (72 percent). Support dropped considerably for Muslims who faced religious persecution (51 percent). In line with the understanding that economic migrants are undeserving refugees, a minority of those polled said "labor union activities" in the origin nation were a justified cause of seeking protection in Germany (49 percent). Also telling was the large percentage of respondents who were ambivalent about whether a cause of forced migration was a legitimate reason for being allowed asylum in Germany. For all items, the percent ambivalent ranged from 8 to 20 percent. While these initial polling figures shed some light onto the understanding of how Germans decide which push factors of migration constitute legitimate reasons to enter Germany and seek asylum, they also highlight a lack of consensus among the German people.

Given the relative recency with which the nation of Germany has experienced this massive refugee in-migration, empirical research is scant, however some work has been done on native attitudes towards refugee legitimacy. In one study, von Hermanni and Neumann (2019) used a sample drawn from the German city of Dresden. In the survey, respondents were given hypothetical vignettes of refugees that had applied for residency in Germany and then asked to state the extent to which entry of these hypothetical refugees was justified. Ultimately, von Hermanni and Neumann found that the "cause of flight" for the refugee, as described in the hypothetical vignettes, had the greatest overall impact in determining the likelihood that respondents found the entry of the refugee justifiable or not. Specifically,

respondents were more likely to endorse the entry of refugees fleeing political persecution, but unlikely to find disaster or poverty as justifiable reasons to allow entry. The likelihood of supporting refugee entry due to war in the sending nation fell between political persecution and disaster. A similar study, also using hypothetical vignettes of potential migrants, was conducted by Czymara and Schidt-Catran (2017) on a sample drawn from the full German population. While this study did not specifically focus on refugees, but rather migrants more broadly, these researchers found that the greatest indicator of whether native-German respondents accepted a migrant was their reason for migration. Those hypothetical migrants that were fleeing persecution (in which persecution was understood to mean any form of persecution) were substantially more likely to be accepted than those migrants that sought entry into Germany for "a better life".

Representational Profiles and Refugee Legitimacy

For the current study, the primary aim is to build off this previous work and create a more comprehensive model of native-Germans attitudes towards refugee legitimacy. While attitudes are generally understood to be individual-level phenomena, with attitudes often being defined as how an *individual* evaluates a social object (Eagly and Chaiken 2007), groupings of attitudes towards a social object across a population begin to constitute "social representations" or, "elaboration[s] of a social object by a *community* for the purpose of behaving and communicating" (Moscovici 1963). Across a given society, multiple social representations towards a social object are present (Moscovici 1988), and all individuals adhering to the same social representation of an object are part of the same "representational profile" (Sibley and Liu 2013). Differing attitudes regarding which push factors of forced migration are legitimate reasons to be allowed entry into Germany as a refugee thus constitute different representational profiles within the German young-adult population. While an individual's membership in a representational profile is likely to be associated with their membership in more observable demographic groups (gender, for example) (Hogg and Smith 2007), representational profiles are often not neatly prescribed based on these more easily measurable social groupings (Moscovici 1988). Analysis of the

heterogeneity in representational profiles *within* demographic groups would be lost if simply observing mean differences in attitudes *between* these groups. Additionally, simply observing mean differences in a set of attitude items within established demographic social groupings would inhibit the ability to investigate the underlying patterns in responses to these items that transcend these demographic social groupings themselves.

In order to study the representational profiles that exist within a population, Sibley and Liu (2013) have advanced a three-stage Latent Class Analysis (LCA) method that is uniquely designed for this task. Using Latent Class Analysis, it is possible to directly measure these representational profiles and, using results from the LCA, to measure the extent to which these profiles are associated with established demographic groups or individual-level social and attitude variables (Sibley and Liu 2013). Using this method, this study will aim to answer the following research questions:

Q1: What are the representational profiles that exist among the native-German young-adult population regarding refugee legitimacy?

Q2: How are these profiles associated with parental education, ethnicity of friendship networks, and attitudes towards immigrant integration?

Latent Class Analysis and Study Hypotheses

To investigate the representational profiles of the native-German young-adult population pertaining to attitudes towards refugee legitimacy, this study will carry out the three-step LCA procedure described by Sibley and Liu (2013). The first step, profile prediction, begins with utilizing theory and previous empirical research to create an *a priori* hypothesis regarding the number of latent classes expected and the item response patterns that are characterized by class membership. Given the current body of research on German attitudes towards refugee legitimacy and the data available through public polling, I hypothesize the presence of three latent classes. The first class will consist of individuals who are characterized by a high probability to see all causes of refugee entry as legitimate. The second class,

the inverse of the first class, will consist of individuals who have a low propensity to endorse *any* cause of refugee migration as a legitimate reason to be allowed entry into Germany. Finally, members of the third class will exhibit a high level of support for refugees that experience the highest levels of vulnerability, such as war victimization or ethnic persecution, but are less likely to support lack of economic opportunity in the sending nation as a legitimate reason for refugee entry.

After deducing the correct number of classes, or profiles, using LCA, the second step is profile validation. Here, I will test the validity of the estimated latent profiles by testing 1) how these profiles are associated with observed variables not included in the construction of the latent classes but which are theoretically *strongly* associated class membership, and 2) how these profiles are associated with observed variables not included in the construction of the latent classes but which are theoretically *weakly* associated class membership (if associated at all). For this study, the latent class analysis will be validated by observing how profile membership is associated with attitudes towards certain ethnic groups in Germany. Given the varying levels of social distance that exist between non-German ethnic groups and the native-German majority (Alba and Foner 2015; Alba and Nee 2003; Shibutani and Kwan 1965), and the understanding among the German people that refugees (and immigrant more generally) are primarily sourced from sending nations that are cultural and socially distant from the German norm (Allievi 2005), I hypothesize that profile membership will be weakly associated with attitudes towards Italians, moderately associated with attitudes towards Poles and Russians, strongly associated with attitudes towards Turks, and most strongly associated with attitudes towards those from Syria.

Finally, for the last step of prevalence mapping, this study will investigate the different demographic, social, and attitudinal compositions of each profile, particularly along the lines of family socioeconomic status, the ethnic makeup of friendship groups, and attitudes towards integration and the cultural expressions of migrants. Because this step is exploratory by nature (Sibley and Liu 2013), and because the number of latent classes is, by definition, not known, there are no distinct hypotheses made during this final step regarding the mapping of these variables onto the representational profiles.

Data and Methods

Data

Data for this project come from Waves 6 and 7 of the Children of Immigrants Longitudinal Survey in Four European Countries – German sample (CILS4EU-DE) (Kalter et. al. 2016). CILS4EU-DE is a nationally representative sample of German adolescents who were 14 years old in 2011 (at Wave 1) and have since been re-interviewed annually. At Wave 6, collected in 2016-2017, a refresher sample was added to account for attrition in the original sample. One primary focus of the refresher study was to collect data that could assist in the study of both native-German and ethnic-minority attitudes towards migrant entry and migrant integration in Germany. As such, the data available contain several items relevant to the current study. Wave 7 was conducted one year later and included all respondents at Wave 6 (excluding those lost to follow up). While the analysis primarily utilizes data from Wave 6, several variables necessary for the analysis were not asked until Wave 7, and all analysis utilizing these variables is thus conducted on the subsample of Wave 6 respondents who have the necessary data at Wave 7.

The analytic sample includes all native-German respondents within the CILS4EU-DE sample, where native Germans are defined as those respondents with all four grandparents being born in Germany (Dollman et al. 2014). Given the lack of large-scale immigrant settlement in Germany until after 1955 (Göktürk et al. 2007), it is safe to assume that these individuals are all of German ethnicity. The mean age of the sample at Wave 6 is 21. Once excluding those respondents missing data on any of the refugee legitimacy variables (n=34), the final analytic sample at Wave 6 includes 2,693 respondents. For the analytic tests of the study, when missingness is present, analysis specific sample sizes are included in the accompanying tables.

Variables

Attitudes towards refugee entry: In Wave 6 of the CILS4EU-DE, respondents were given the prompt, "Do you think it is right or wrong that Germany receives refugees who…", to which they were given a battery of six reasons for which a migrant may request entry into Germany under the protected status of refugee.

These were “fled from war or civil war”, “fled from starvation or natural disasters”, “are persecuted politically”, “are persecuted religiously”, “are persecuted for their ethnicity”, and “left their homes due to insufficient job opportunities”. Each of these six items are dichotomized, with 0=“wrong” and 1=“right”.

Attitudes towards ethnic groups: In Wave 7 of the CILS4EU-DE, respondents were asked to rate their feelings towards multiple ethnic groups on a scale of 0-10, in which zero indicated the most negative feelings and ten indicated the most positive feelings. The current study uses respondents reported attitudes towards five groups; Italians, Poles, Russians, Turks, and Syrians.

Parental education: Parental education was either self-reported by respondents at Wave 6 (if they were in the Wave 6 refresher sample) or parent-reported at Wave 1 (if they were part of the original CILS4EU-DE sample). Parental education is coded in line with the Germany’s three-tiered secondary-schooling system consisting of a lower-, middle-, and upper-secondary track, along with an additional category for those parents who received a university education after completing secondary school, producing a four-category ordinal variable. If a respondent has two parents who differed in their levels of education, information from the higher-educated parent is used.

Ethnicity of friends: At Wave 6 of the survey, respondents were asked to report the proportion of their friends that were of a given ethnicity on a five-point Likert scale from “All or almost all” to “None or very few”. For the non-German ethnicities, here, Italian, Polish, Russian, Turkish, or “Other”, responses are dichotomized so that 0=“None or very few” and 1 indicated any other response. For the item pertaining to the proportion of a respondent’s friend group that was German, responses are dichotomized so that 1=“All or almost all” and 0 indicate any other response.

Attitudes towards immigrant integration: At Wave 6 of the CILS4EU-DE study, respondents were asked to state if, and to what extent, they agree with the following statements, “The German people should do all they can to keep their customs and traditions”, “Immigrants should adapt to German society”, “The German people should be open to the customs and traditions of immigrants”, and “Immigrants should do all they can to keep their customs and traditions”. Respondents were asked to respond to these questions

on a 5-point Likert scale from “Strongly Agree” to “Strongly Disagree”. For the current study, responses are collapsed and dichotomously coded as 1=Agree, 0=Disagree/Neither Agree nor Disagree.

Analytic Strategy

Profile prediction: The first step of profile predication is to carry out the Latent Class Analysis (McCutcheon 1987). Below is the equation for the LCA model utilized in this study.

$$\pi_{ijklmnt}^{ABCDEFX} = \pi_t^X \pi_{it}^{A|X} \pi_{jt}^{B|X} \pi_{kt}^{C|X} \pi_{lt}^{D|X} \pi_{mt}^{E|X} \pi_{nt}^{F|X}$$

In this equation, *A*-*F* are the observed indicator variables that are used to determine class membership. In the current study, these are the respondent attitude variables towards legitimate refugee entry. Latent variable *X* is a categorical variable, in which each category is defined by a latent class, or “*t*”. In this equation, π_t^X is the probability that a randomly selected respondent is located in latent class *t* of variable *X* and $\pi_{it}^{A|X}$ is the probability that a member of latent class *t* has a value of *i* for observed variable *A*. $\pi_{jt}^{B|X}$ through $\pi_{nt}^{F|X}$ have the same function as $\pi_{it}^{A|X}$ but for observed variables *B* through *F*. In a demonstrative example using the current study, assume there is a latent class that generally finds all causes of refugee settlement to be illegitimate (*X*=1, in this case) and that *A* is the item “Do you think it is right or wrong that Germany accept refugees who fled from war or civil war?” (right=1, wrong=0). In this case, $\pi_{11}^{A|X}$ would be the probability that a respondent in class X=1 would have answered “right” to this item. By using the observed responses of the respondents on all six refugee-entry items, it is possible to determine the latent class to which they have the highest probability of being a member, and then assigning each respondent to a latent class. These latent classes thus measure the underlying representational profiles of the social representations of refugee legitimacy in the native-German young-adult population (Sibley and Liu 2013).

When conducting LCA, the number of estimated latent classes is fixed, and the data are fit to a model with this fixed number of classes. The appropriate number of classes can be determined by running multiple models with different numbers of fixed classes and using the resulting fit indices produced by

each model to determine the best fitting number of classes. This study primarily understands the sample-size adjusted Bayesian Information Criterion (aBIC) (Sclove 1987) to be the most appropriate measure of goodness-of-fit in an LCA model. While most measures of goodness-of-fit will converge in their support for the appropriate number of classes when sample sizes reach over 1,000 (Yang 2006), research has shown that the aBIC is the most accurate at estimating the correct number of classes, and that it requires the least amount of respondents in each class to accurately determine the best fit (Yang 2006). The formula for determining the aBIC is

$$aBIC = -2logL(\theta_j) + \gamma * \log(n^*)$$

where $-2logL(\theta_j)$ is the log likelihood of the model, γ is the number of free parameters in the model, and n^* is an adjusted sample size value in which $n^* = (n + 2)/24$. This is the same formula as the BIC, but with the addition of the sample-size adjustment.

Profile validation: To validate the profiles estimated in the profile prediction process, Ordinary Least Squared regressions are run in which attitudes towards each ethnic group are regressed on profile membership. In each of these regressions, two components are of interest; 1) the *F*-statistic, which measures the improvement of a regression model with the inclusion of profile membership versus the intercept only version of the model and 2) the R^2 statistic, which indicates the amount of the variation in the dependent variable that is explained by the profile membership variable. Greater values of the *F*-statistic indicate greater improvement of the full model over the intercept only model and greater values of the R^2 statistic indicate a greater portion of overall variation in the dependent variable explained by the independent variables in the model.

Profile mapping: Finally, once the profiles are validated, associations between profile membership and the focal demographic and social variables are investigated. Here, the profiles are assessed for their association with respondents' parental education, ethnicity of friend networks, and opinions regarding immigrant integration and cultural expression. To test the extent to which responses on these variables differentially map onto the representational profiles, two-proportion t-tests are performed between these

profiles, using the largest profile as a reference group. As a further test of prevalence mapping, a multinomial logistic regression model in which profile membership is regressed on all the variables in the prevalence mapping stage is run. This multinomial logistic regression model analyzes the independent association between profile membership and each profile mapping variable while controlling for all other profile mapping variables.

Across all stages of the LCA process, necessary sampling weights are included to account for the complex sampling design of the CILS4EU-DE dataset.

Results

Weighted sample proportions for all six refugee-entry items are shown in **Table 4.1**. Overall, a large majority of the sample endorses the idea that fleeing Civil War and starvation or natural disasters are legitimate reasons for refugee entry into Germany (.96 and .92 respectively). A smaller proportion, but still a majority, states that political, religious, and ethnic persecution are reasons to be allowed into Germany as a refugee (.84 for each). In line with the finding of previous research that native Germans generally do not see economic insecurity as a reason to be classified as a refugee, slightly less than half of respondents believe insufficient job opportunities should be a reason to be allowed into Germany as a refugee (.47).

Profile Prediction

For the first step of profile prediction, LCA was carried out using MPlus version 8.3 (Muthén and Muthén 2019). **Figure 4.1** shows the comparisons of the AIC, BIC, and aBIC for models in which two to six classes were fit. Ultimately, the best fitting model is the four-class model, as noted by the lowest BIC and aBIC values.

Using this four-class model, respondents in the CILS4EU-DE study were assigned their profile membership of highest probability based on their responses to the six refugee-entry items. By looking at differences in item response between representational profiles, it is possible to define these four profiles

based on their attitudes towards "acceptable" causes of refugee entry. **Table 4.2** shows the proportion of each profile that endorsed the six refugee-entry items, and these values are shown graphicly in **Figure 4.2**. First, the "Most Accepting" profile represents those who, for the most part, see all causes of refugee migration as legitimate reasons for entry into Germany. The "Strict Acceptance" profile represents those who accept threats to a migrant's life as legitimate, such as in the case of civil war or starvation, but generally do not see forms of persecution as justifying refugee entry. The "Persecution Acceptance" profile represents the inverse of the Strict Acceptance profile. Respondents in this profile see forms of persecution as being highly legitimate reasons for refugee entry, but are less accepting of starvation or low job opportunities than the Strict Acceptance group (though both highly endorse "Civil War" as legitimate). The final "Least Accepting" profile represents those who express low levels of acceptance for all causes of refugee entry. Across all profiles, even the Most Accepting, there was a decrease in support for the entry of refugees as the result of lower economic opportunities in the sending nation. This indicates a secular trend in the population, with attitudes towards other forms of refugee entry being the basis for differences in profile membership. The majority of native Germans represented by this sample are part of the Most Accepting profile (74.2 percent), with those in the Strict Acceptance and Persecution Acceptance profiles representing 15.4 and 7.1 percent of the population respectively. Only a small minority of this population is part of the Least Accepting profile (3.3 percent).

Profile Validation

For the second step of profile validation, the relationships between profile membership and attitudes towards non-German ethnic groups within Germany were assessed using a set of bivariate OLS regressions[4]. **Table 4.3** shows the *F*- and R^2 statistics for each regression. Here, the *F*-statistics for each

[4] All dependent attitude variables exhibited some level of missingness, mainly due to these attitude questions being collected at a later wave (attrition), but also perhaps due to the sensitive nature of expressing attitudes towards other ethnic groups. Missingness ranged from 22.9 percent to 31 percent within the analytic sample, depending on the ethnic group attitude variable. For all regressions, any respondent with information on the dependent variable was included. Sample sizes for each regression are listed in **Table 4.3**.

bivariate regression become greater in each subsequent regression, indicating a greater improvement of fit versus the intercept-only model for each subsequent ethnic group attitude. This pattern is also seen in the R^2 values, indicating that profile membership explains a continuously greater proportion of the overall variance in attitudes towards each subsequent ethnic group.

In **Figure 4.3**, the weighted means of each attitude variable by profile are plotted with 95 percent confidence intervals. Across all profiles, mean attitudes trend downward across the ethnic groups, with the Least Accepting profile generally having low attitudes towards all non-German groups. Beyond simply describing the relationship between these attitudes and profile membership, **Figure 4.3** also assists in validating the profiles. Across ethnic groups, the mean values for these reported attitudes generally diverge, at least for the three largest profiles, indicating that differences in attitudes towards ethnic groups become more pronounced between profiles as the social distance between native Germans the ethnic out-group being assessed increases. While the 95 percent confidence intervals overlap in many instances, this is mainly the result of small profile sizes, particularly for the Persecution Acceptance and Least Accepting profiles.

Prevalence Mapping

For the final step of prevalence mapping, demographic, social, and attitudinal differences were analyzed between the latent profiles. First, differences in education are analyzed as a function of profile membership. **Table 4.4** shows the proportions of each profile with parents of a given educational attainment. Asterisks note significant differences from the Most Accepting profile at the .05 level. Results show that those in the Persecution Acceptance profile have levels of parental education similar to the most accepting profile, while those in the Strict Acceptance and Least Accepting profiles have higher proportions of parents with lower secondary education and lower proportions of parents with upper secondary and university educations. These proportions are shown graphically in **Figure 4.4.**

Second, differences in the ethnic makeup of respondent friendship groups were analyzed between profiles. Results for these tests can be found in **Table 4.5**. Here, results show that those in the Least

Accepting profile are less likely to report that at least some of their friends are Turkish or "Other" than the Most Accepting profile, while all other profiles are equally likely to report at least a few friends across all non-German ethnic groups. Additionally, both those in the Strict Acceptance group and the Least Accepting group are much more likely to report that all or almost all of their friends are German than the Most Accepting group. These proportions are shown graphically in **Figure 4.5**.

Third, the associations between profile membership and attitudes towards immigrant integration were analyzed. Results can be found in **Table 4.6**. Here, results show that those in the Strict Acceptance profile are more likely to endorse the idea that the German people should keep their customs and traditions, and that immigrants should adapt to the German society than the referent Most Accepting profile. Those in both the Strict Acceptance profile and the Least Accepting profile are less likely to agree with the statement that the German people should be open to the traditions and customs of immigrants. No profiles differed statistically in their opinion towards the statement "Immigrants should do all they can to keep their customs and traditions", and overall, agreement with this statement is low. As in the previous two examples, those in the Persecution Acceptance profile do not exhibit any mean differences with those in the Most Accepting profile. Results for **Table 4.6** are shown graphically in **Figure 4.6**.

Finally, a multinomial logistic regression model in which profile membership is regressed on the variables used in the profile mapping process was carried out. These results supplement the previous analysis of correlations by identifying how these focal mapping variables are associated with profile membership while accounting for the effects of the other covariates. Because the mapping items regarding Italian, Polish, and Russian friendship networks and opinions towards the statements "Immigrants should do all they can to keep the customs and traditions" did not statistically differ between any of the profiles in the bivariate analysis above, these variables are excluded from the multinomial logistic regression. Results for this model can be found in **Table 4.7**, in which coefficients are shown in both exponentiated form and as standard logit coefficients.

By controlling for the other covariates in the model, this final model presents a more detailed picture than the simple bivariate correlations above, and as a result, the findings differ in several ways.

First, the association between parent education and profile membership, while still present for those in the Strict Acceptance profile, is no longer present for those in the Least Accepting profile. Controlling for the covariates of the model, those in the Strict Acceptance profile are about a quarter as likely to have a parent with at least an upper-secondary degree than those in the most accepting profile, and only one-tenth as likely to have a parent with a University education. For the friendship network variable, any association between ethnicity of friends and profile membership found in the bivariate analysis above is explained away in the full model, except for "proportion of German friends" for those in the Least Accepting profile. Members of this profile are 3.42 times as likely to state that all or almost all their friends were German than the Most Accepting profile. Finally, for the items pertaining to respondents' attitudes toward integration and expression of native customs, those in the Strict Acceptance profile are 1.79 times as likely and 2.23 times as likely respectively to report that Germans should do all they can to keep their customs and traditions ("Keep") and that immigrants should adapt to the customs and traditions of the German people ("Adapt") than those in the referent Most Accepting profile. Members of this profile are also only 43 percent as likely to endorse the idea that Germans should be more open to the customs and traditions of immigrants ("Open"). Interestingly, while those in the Least Accepting group are also less likely to endorse the idea the Germans should be open to immigrant customs and traditions, they are also significantly less likely to agree with the idea that immigrants should adapt to the customs and traditions of Germany than those in the Most Accepting profile. This is in contrast to those in the Strict Acceptance group, who are *more* likely to state that migrant should adapt to German customs and traditions.

Analysis of Hypotheses

For the first stage of profile prediction, results show that the best fitting model is one in which four latent representational profiles are fit to the data. This finding contrasts with my initial hypothesis, in which the presence of three profiles was hypothesized; one profile that positively endorsed all six refugee-entry items as legitimate grounds for entry into Germany, one profile that negatively endorsed all

of these refugee-entry items, and one profile that was accepting of refugee entry in all cases except for lack of job opportunities in the sending nation. This hypothesis was built on research that has found that native Germans generally do not accept economic need as a legitimate cause of refugee migration (Holzberg et al. 2018; Kyriakides 2017; Vollmer and Karakayali 2017). In observing the distribution of each of these refugee-entry items across groups, the evidence that there exists both a group that is more likely to accept refugees for any cause (Most Accepting) and one that is least likely to accept refugee entry for all causes (Least Accepting), partially supports my initial hypothesis. Where it appears there is room for nuance among native-German young adults is in the understanding of whether or not refugees are legitimate as a function of exposure to starvation and/or natural disaster, or presence of some type of persecution in the sending nation. Around 15 percent of the sample fall into a profile that understands starvation and natural disasters to be reasons to allow refugees in, but are much less likely to find all forms of persecution to be valid reasons for entry into Germany, while around seven percent of the sample holds the exact opposite beliefs. While there are differences by profile in the proportion of the sample who see lack of economic opportunity as a legitimate cause of refugee entry, a sharp drop in support for this item is seen across all profiles, indicating that variation does not exist to the extent to which endorsement of this item would correspond to placement in a unique latent profile. My hypothesis of a latent profile based on respondent attitudes towards the entry of economic refugees is not supported.

For the second step of profile validation, my hypothesis regarding the association between profile membership and attitudes towards non-German ethnic groups in Germany is upheld. Profile membership becomes a greater predictor of attitudes towards non-German ethnic groups and accounts for a greater proportion of the variation in these attitudes explained as the ethnic group being evaluated becomes more socially distant from the native-German ethnicity represented by all members of the sample.

Discussion

With Germany becoming a top receiving nation for refugee migration, further study of how native Germans understand the “legitimacy” of refugee resettlement is necessary. This study aimed to

investigate how social representations of refugee legitimacy have translated into representational profiles of refugee legitimacy within this population. To do this, the three-step LCA process described by Sibley and Liu (2013) was carried out on a nationally representative sample of Germans entering adulthood. This LCA process uncovered the presence of four representational profiles within this population; a Most Accepting profile that viewed almost all causes of refugee entry as legitimate, a Strict Acceptance profile that viewed civil war and natural disaster or starvation be to legitimate reasons for entry (but not persecution), a Persecution Acceptance profile that found civil war and political, religious, or ethnic persecution to be legitimate causes of refugee entry (but not natural disaster or starvation), and a Least Accepting profile that generally saw all forms of refugee entry to be illegitimate.

First, it is important to note that a large majority of the German young-adult population is part of the Most Accepting profile. In fact, three out of four individuals in this population are estimated to be part of a representational profile that overwhelming sees all forms of non-economic refugee migration as legitimate, and is even slightly more likely than not to endorse economic refugees as legitimate (58 percent). In his theory of representational profiles, Moscovici (1988) notes that some representational profiles among a population can be hegemonic, in that the larger social attitudes towards an object within a population are the same among all individuals. While results from the latent class analysis show the presence of four distinct representational profiles, the argument could be made that attitudes towards refugee legitimacy are *largely* hegemonic among native-German young adults, as a substantial majority of respondents fall into one profile. Given that the most important determinant of positive attitudes towards refugee migrants in general among the native-German population is whether or not their refugee status is deemed legitimate (Czymara and Schmidt-Catran 2016, 2017; von Hermanni and Neumann 2019), this finding is, overall, encouraging as it pertains to relations between native Germans and refugee migrants today. Additionally, the representational profiles that define this cohort of Germans are likely to remain consistent within this cohort as these individuals age (Schotte and Winkler 2014), which bodes well for these relations into the future. Considering a vast majority of refugee migrants from the 2015/16 refugee crisis have been granted some form of regularized residency permit in Germany (Federal Office for

Migration and Refugees 2018), native-German interaction with refugee populations is likely to continue for some time.

While the understanding that the process of profile prediction would uncover the presence of a benevolent "Most Accepting" profile and an anti-refugee "Least Accepting" profile, as per my initial hypothesis, is upheld, the unanticipated discovery of the two intermediary profiles presents an interesting point of theoretical expansion. The only noticeable difference between the Most Accepting profile and the Persecution Acceptance profile is the lower propensity of the latter to endorse refugees fleeing natural disaster or starvation to be legitimate. One explanation may be that members of the latter profile adhere to a more strict, legal definition of refugee. Within Germany, refugees are defined by the Geneva Convention of 1951 as those with a "well rounded fear of being persecuted for reasons of race, religion, nationality, [or] membership of a particular social group or political opinion" (UN General Assembly 1951), supplemented by German asylum law that also grants refugee protections to those who "face a serious individual threat to their life or integrity due to arbitrary violence in the context of an international or domestic armed conflict" (von Hermanni and Neumann 2019). In the Persecution Acceptance profile, high rates of acceptance for those seeking refugee status as a result of one of these "legal" push factors suggest that this representational profile relies on legal definitions to define their understanding of refugee legitimacy. Interestingly, this profile does not significantly differ from the Most Accepting profile on any of the variables utilized in the profile mapping stage, indicating that if these profiles differ based on demographic, social network, or attitudinal variables, they are not parental SES, ethnicity of friendship networks, or attitudes toward immigrant integration.

In regard to the 15.4 percent of the population that falls into the Strict Acceptance profile, there appears to be a shared understanding that refugee status should only be made available to those who face the ultimate risk if they remain in their sending nation, namely, death. Forms of persecution are perhaps seen as less serious, and therefore less legitimate reasons to be allowed into Germany. This profile appears to define legitimacy based on the severity of the push factor that lead to refugee migration, even

though this definition of refugee legitimacy partially contrasts with the legal definition of refugee legitimacy according to German law.

For the process of profile mapping, results from the multinomial logistic regression model indicate that for those in the Strict Acceptance profile, profile membership is primarily a function of parental education and immigrant integration attitudes that favor German customs and traditions and oppose the acceptance of immigrant, i.e., non-German, culture and tradition. For the Least Accepting profile, the bivariate association with education, found in the two-proportion t-tests, is no longer associated with profile membership in the full regression model. Instead, profile membership is found to be a function of friendship groups and integration attitudes. The finding of a strong association between membership in the Least Accepting profile and having only German friends is in line with the understanding of Social Identity Theory, which posits that sustained interpersonal interaction with fellow in-group members (in this case, Germans) fosters positive attitudes towards the ethnic in-group and negative attitudes towards ethnic out-groups (Hogg and Smith 2007). The highly co-ethnic friendship networks of native Germans in the Least Accepting profile may be heightening their negative out-group attitudes toward non-German ethnics, driving a general animosity towards all immigration, refugee or not. This idea is supported by the findings of the profile validation step, in which the Least Accepting profile exhibited negative attitudes to all non-German ethnic groups, in contrast to the more gradual decline in attitudes across non-German ethnic groups seen in the other three profiles.

Looking at the association between integration items and profile membership, the association between endorsement of the item "Immigrants should adapt to the German society" and profile membership is significant for both the Strict Acceptance profile and the Least Accepting profile. However, the direction of the association is flipped between the profiles, with the former being much *more* likely to endorse this item, while the latter being much *less* likely. In their Interactive Acculturation Theory, Bourhis and colleagues argue that members of the native population within a migrant receiving society adopt "acculturation strategies" that determine their attitudes towards "proper" migrant integration in their nation. In looking at the inverse association between integration attitudes and predicted

membership in the Strict Acceptance profile and the Least Accepting profile, it is possible to inform the findings using this theory. Bourhis and colleagues describe one acculturation strategy, the assimilation strategy, as being defined by the desire that immigrants adopt the norms, values, and cultural practices of the native group, while at the same time ceasing to engage in the norms, values, and cultural practices of their ethnic group. The Strict Acceptance profile appears to be composed of individuals who have adopted this acculturation strategy, at least relative to the Most Accepting group. The other acculturation strategy applicable to the current context, the exclusion strategy, is also defined by a desire that immigrants do not maintain their ethnic customs and traditions, as well as a desire for immigrants to *not* adopt the customs and traditions of the native society. Here, the Least Accepting group appears to exhibit the exclusion acculturation strategy by way of their lower likelihood to endorse both that Germans should be open to migrant customs and traditions, and that migrants should adopt German customs and traditions.

Limitations

There are potential limitations to the current study. First, because this analysis used data from a sample of one young-adult cohort, these results are not generalizable to the entire native-German population. While there is a strong appeal to specifically studying the attitudes of those who transitioned through adolescence and into young adulthood during the refugee crisis, this age group makes up a small portion of the native-German population overall. Second, this study inherently makes the assumption that native Germans endorse the entry of *all* refugees they see as "legitimate", i.e., the assumption that finding a refugee to be "legitimate" implies acceptance to the entry of that refugee into Germany. It is possible that a native-German respondent may understand a push factor of migration to be a legitimate definer of refugee status, but is still not be accepting of that refugee entering Germany. This phenomenon may be present in the Least Accepting profile, where animosity towards all non-German ethnic groups and lack of support for the entry of *any* migrants may be driving attitudes towards refugee entry regardless of understandings pertaining to refugee legitimacy. However, this group represents a small proportion of the sample, and the three larger profiles do exhibit variation in their responses to the refugee-entry items. This

variation suggests a strong association between the concept of "legitimacy" and support of entry into Germany for these three profiles, who represent almost 97 percent of the native-German young-adult population. Finally, given the recent rise of the right-wing Alternative-for-Germany (*Alternative-für-Deutschland*), it would have been particularly interesting to investigate how political affiliation or respondent voting histories mapped onto the representational profiles. However, the CILS4EU-DE dataset did not collect data on party preference or voting history at Waves 6 or 7, inhibiting the ability to investigate these associations.

Conclusion

As Germany becomes a primary destination for refugee migrants, the native population will continue to define the circumstances under which these forced migrants should be allowed to settle in their nation. Ultimately, a majority of the young-adult population appears willing to embrace almost any cause of forced migration as a legitimate form of refugee entry, outside of economic hardship. This has positive implications for refugee populations who are exposed to war, disaster, or forms of persecution in their home nation, however it remains to be seen if this largest profile of German young adults acts on these benevolent attitudes in the future and assists in the creation of pro-refugee policy. But while there is a clear majority stance when it comes to attitudes towards refugee legitimacy, the presence of multiple latent profiles implies an inherent heterogeneity in how these native Germans define legitimate refugee entry, and future policy aimed at refugee entry will have to contend with the multiple understandings of refugee legitimacy that define the native-German population.

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Table 4.1: Weighted Sample Proportions for the Refugee-Entry Items in the Analytic Sample

Item Name	Do think it is right or wrong that Germany accepts refugees who…?	Prop.
Civil War	fled from civil war?	.96
Starvation	fled from starvation or natural disasters?	.92
Political Pers.	are persecuted politically?	.84
Religious Pers.	are persecuted religiously?	.84
Ethnic Pers.	are persecuted for their ethnicity?	.84
Job Opp.	left their home due to insufficient job opportunities?	.47
		n=2,693

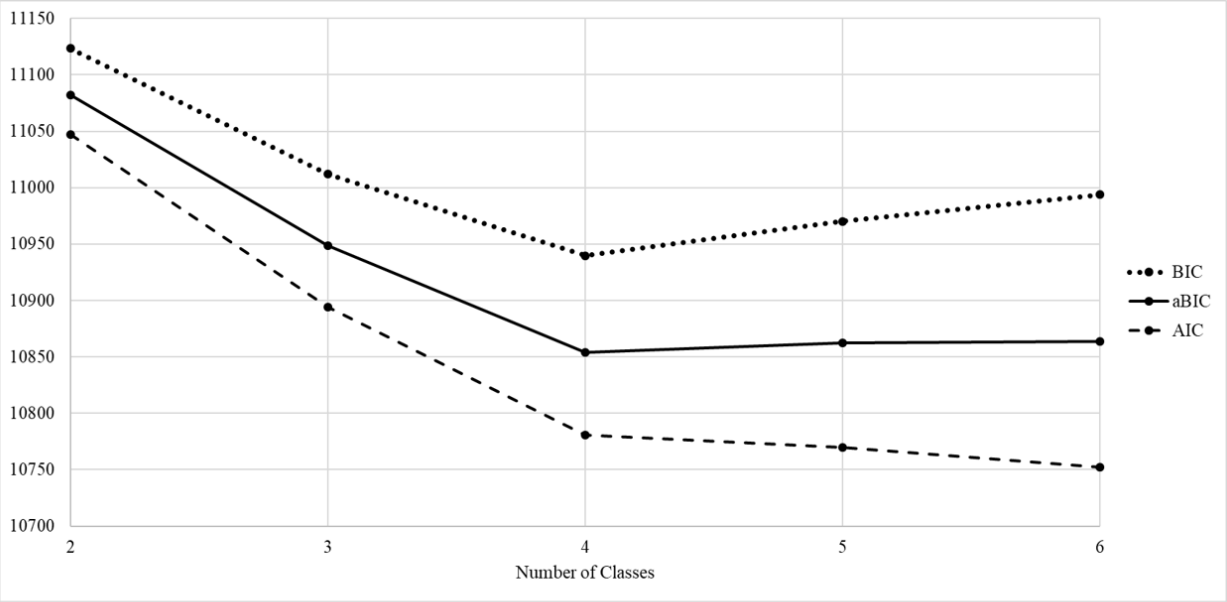

Figure 4.1 – Comparison of LCA models

Table 4.2: Proportion Endorsing each Refugee-Entry Item by Profile Membership

	Most Accepting	Strict Acceptance	Persecution Acceptance	Least Accepting
Civil War	1.00	.90	.97	.31
Starvation	.99	.97	.46	.23
Political Pers.	.96	.38	.94	.00
Religious Pers.	.99	.29	.90	.03
Ethnic Pers.	.99	.39	.71	.00
Job Opp.	.58	.27	.00	.00
Percent of sample	74.2%	15.4%	7.1%	3.3%

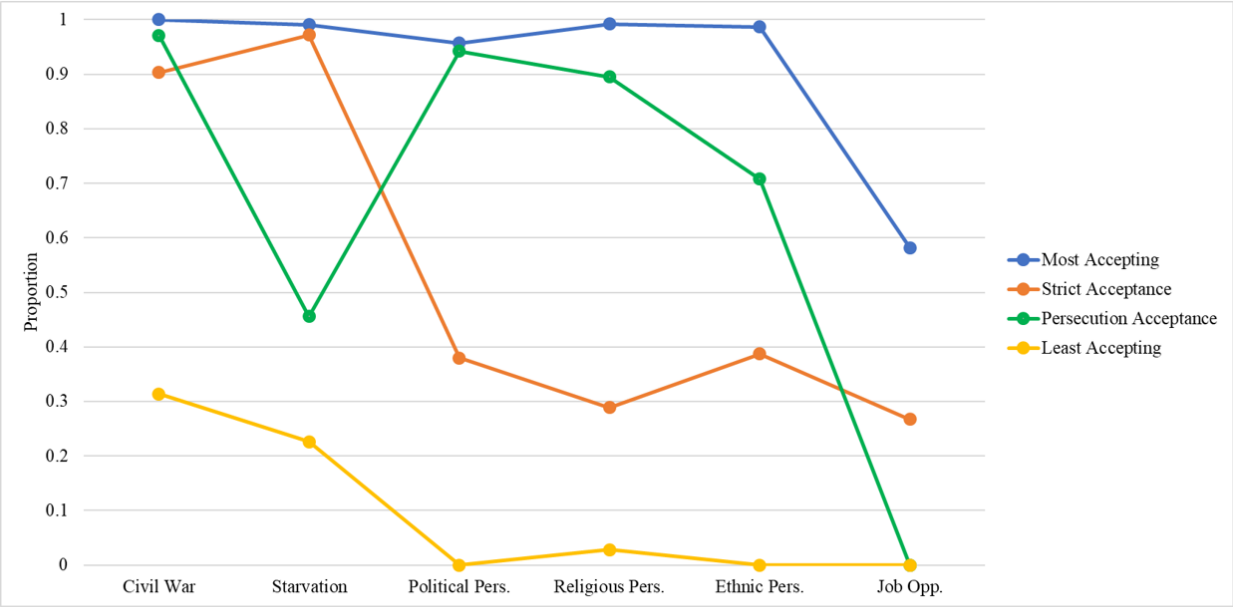

Figure 4.2 – Proportion endorsing each refugee-entry item by profile membership

Table 4.3: Bivariate Regressions of Attitudes Towards Non-German Ethnic Groups Regressed on Profile Membership

Ethnic Group	*F*-test Deg. Freedom	*F*-statistic	*F*-test p-value	R^2	n
Italians	(3, 1984)	4.41	.0042	.018	1,988
Poles	(3, 1989)	5.39	.0011	.023	1,993
Russians	(3, 1991)	5.57	.0008	.023	1,995
Turks	(3, 2022)	9.00	.0000	.045	2,026
Syrians	(3, 1863)	19.80	.0000	.093	1,867

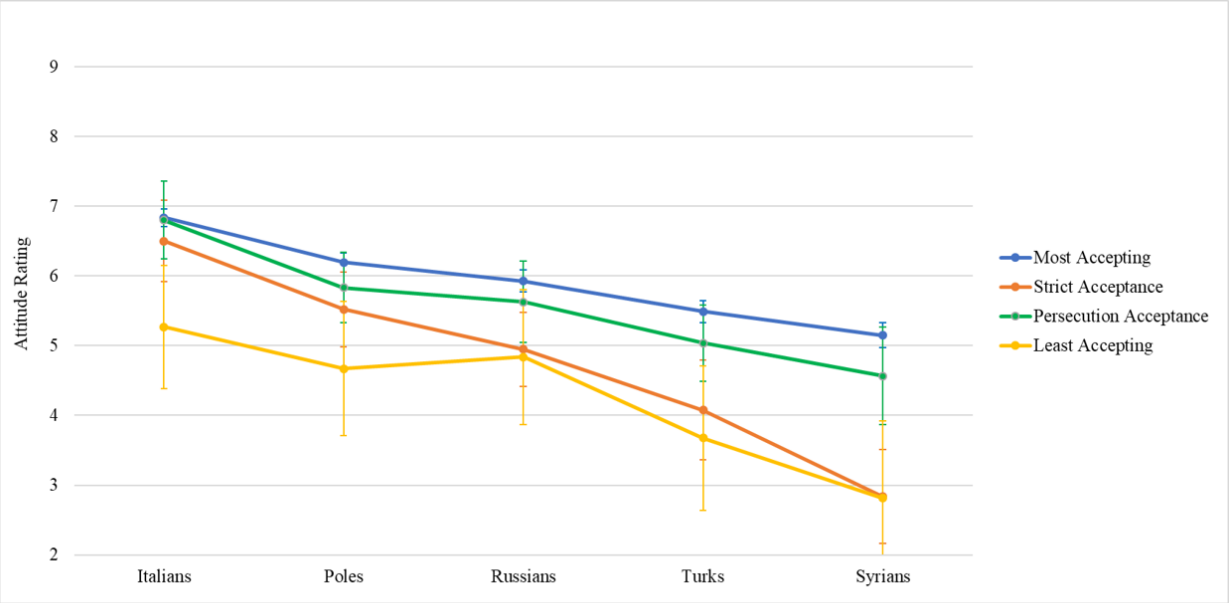

Figure 4.3 – Attitudes towards ethnic groups by profile membership

Table 4.4: Estimated Proportions for Parental Education by Profile Membership

	Most Accepting	Strict Acceptance	Persecution Acceptance	Least Accepting
Lower Secondary	.18	.41*	.27	.41*
Middle Secondary	.39	.44	.34	.41
Upper Secondary	.15	.07*	.13	.03*
University Degree	.28	.07*	.26	.15*

*=p ≤ .05

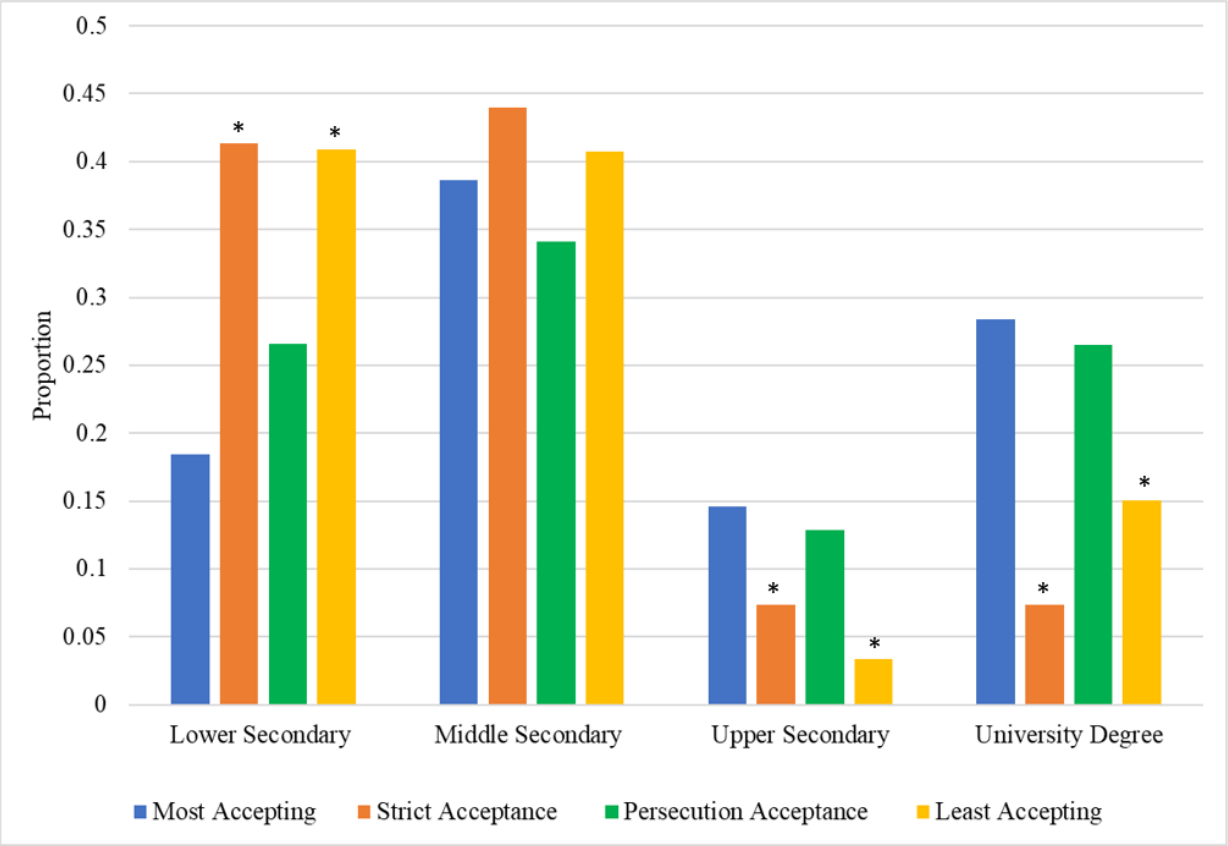

Figure 4.4 – Parental education by profile

Table 4.5: Estimated Proportions for Reported Friendship Ethnicity by Profile Membership

Ethnicity	Most Accepting	Strict Acceptance	Persecution Acceptance	Least Accepting
Italian	.16	.15	.21	.14
Polish	.30	.27	.25	.20
Russian	.35	.34	.29	.30
Turkish	.44	.42	.38	.23*
Other Non-German	.50	.42	.54	.31*
Only German Friends	.43	.54*	.52	.77*

*=p ≤ .05

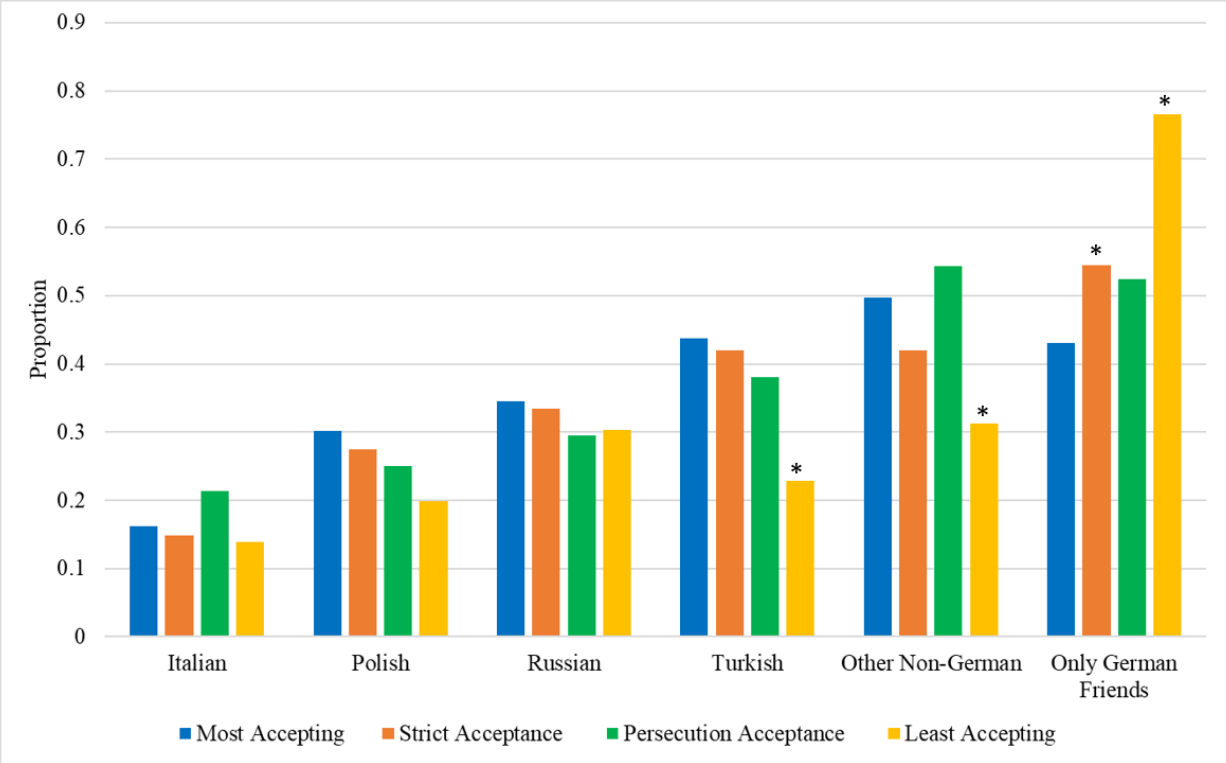

Figure 4.5 – Ethnicity of friendships by profile membership

Table 4.6: Estimated Proportions for Immigrant Integration Attitudes by Profile Membership

	Most Accepting	Strict Acceptance	Persecution Acceptance	Least Accepting
The German people should do all they can to keep their customs and traditions	.59	.82*	.65	.73
Immigrants should adapt to the German society	.75	.90*	.81	.64
The German people should be more open to the customs and traditions of immigrants	.76	.52*	.71	.38*
Immigrants should do all they can to keep their customs and traditions	.33	.28	.31	.28

*=p ≤ .05

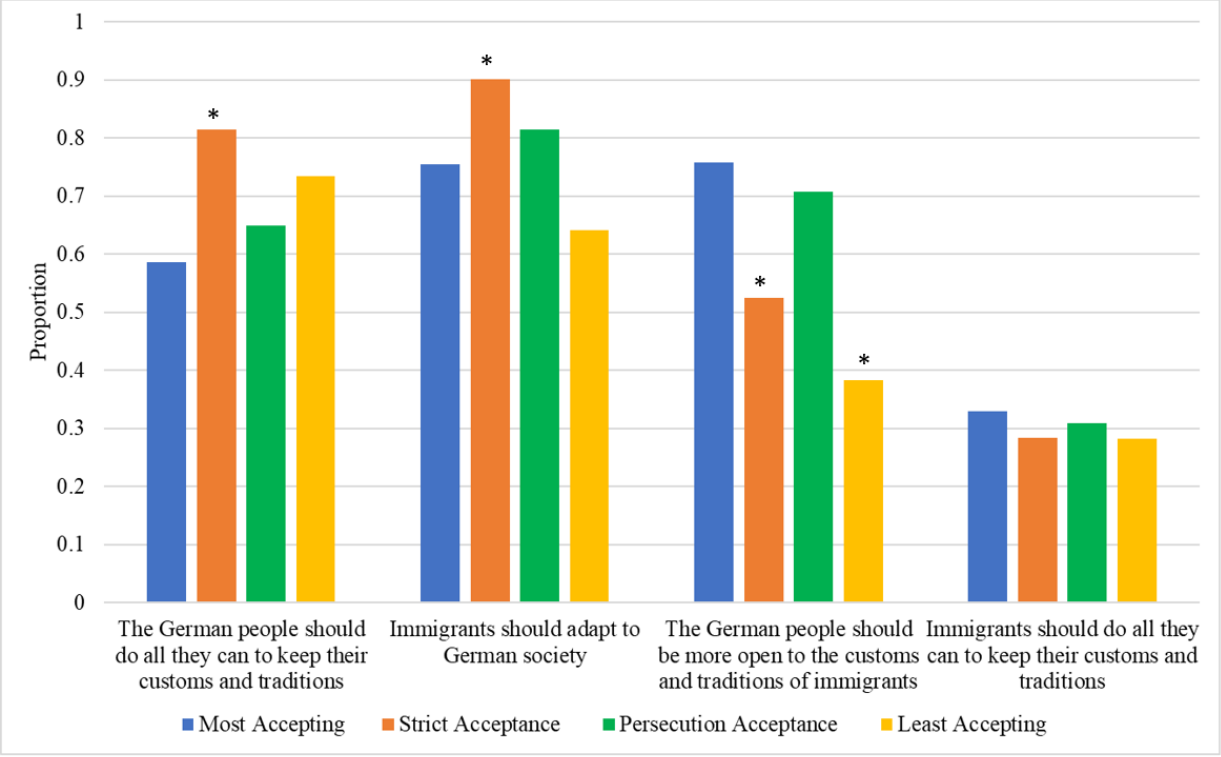

Figure 4.6 – Attitudes towards immigrant integration by profile membership

Table 4.7: Multinomial Logistic Regression of Profile Membership on the Prevalence Mapping Variables (reference category = Most Accepting)

	Strict Acceptance e^{β} (β/SE)	Persecution Acceptance e^{β} (β/SE)	Least Accepting e^{β} (β/SE)
Parental Education			
Lower Secondary (ref)	0.00 -	0.00 -	0.00 -
Middle Secondary	0.60 (-0.51/0.31)	0.73 (-0.32/0.41)	0.56 (-0.59/0.56)
Upper Secondary	**0.27**** (-1.30/0.39)	0.57 (-0.56/0.49)	0.22 (-1.53/0.82)
University	**0.10***** (-2.27/0.40)	0.63 (-0.46/0.44)	0.40 (-0.91/0.63)
At Least a Few…			
Turkish Friends	0.59 (-0.54/0.28)	0.85 (-0.16/0.28)	0.44 (-0.82/0.50)
"Other" Friends	0.99 (-0.01/0.27)	1.31 (0.27/0.30)	1.22 (0.20/0.48)
All or Almost All…			
German Friends	1.15 (0.14/0.30)	1.61 (0.47/0.31)	**3.42*** (1.23/0.58)
Integration Attitudes			
Keep	**1.79*** (0.58/0.28)	1.10 (0.10/0.33)	1.86 (0.62/0.58)
Adapt	**2.23*** (0.80/0.40)	1.30 (0.26/0.41)	**0.27*** (-1.33/0.60)
Open	**0.43**** (-0.85/0.27)	0.93 (-0.07/0.30)	**0.19***** (-1.64/0.48)
Constant	0.17*** (-1.76/0.52)	0.07*** (-2.66/0.52)	0.13* (-2.03/0.87)
n			2,081
Psudo-R^2			.0970
-2 log likelihood			-1541.7399
Wald Chi^2			110.49(27)***

*=p ≤ .05, **=p ≤ .01, ***=p ≤ .001

CHAPTER 5: CONCLUSION

Since the end of the Second World War, Germany has become one of the primary immigrant-receiving nations in the world. In that time, multiple streams of in-migration from myriad sending nations have created a complex mosaic of ethnicities and national origins across the German population. In addition to the demographic diversity represented by the migrant-origin population, each migrant-origin group has experienced different reasons for entering Germany, from desire for labor opportunities, to family reunification, to refugee migration. Finally, the legal frameworks of German migration and integration law and the larger social representations of migrant-origin populations within the native-German populous have differentially impacted the lived experiences of immigrants and their families. The goal of this dissertation was to investigate three sociologically important topics pertaining to migration and integration within the contemporary Germany context. Further, this dissertation focused on how Germany's history of immigration and integration uniquely effects those individuals transitioning through one of the most important developmental stages of the life course, adolescence. For all three empirical chapters, this dissertation utilized a nationally representative, longitudinal dataset of both native and migrant-origin German adolescents (CILS4EU-DE) and advanced statistical modeling to answer several important research questions.

In Chapter 2, the first empirical chapter of the dissertation, the first aim was to understand how measures of integration at both the parent and child level are associated with ethnic disparities in secondary-school tracking between native Germans and those of migrant origin. Results from this chapter indicate that for those of Turkish origin, disparities in secondary-school tracking (here, entry into the prestigious *Gymnasium* track) are primarily mediated by family socioeconomic status. In Germany, family socioeconomic status is a fundamental determinant of secondary-school tracking for *all* children and this leads to a strong reproduction of educational attainment across generations. Turkish families,

who experience disparities across most measures of socioeconomic status, are thus disproportionately impacted by this intergenerational reproduction. For those of Southern-European origin, these disparities in secondary-school tracking are not accounted for until controlling for all measures of integration and generational status. The finding that generational status primarily explains the inequalities seen between native Germans and those of Southern-European origin is telling, especially given the fact that this mediation was driven by the generational status of "third generation". Given the relative ease with which those of Southern-European origin can move back and forth between Germany and their sending nation, parents of this migrant-origin group may invest less in providing their children with German-specific capital. However, Southern-European children of the third generation have two German-born parents, who may feel little attachment to their sending nation and a stronger connection to the German state in which they were born. Thus, these parents may work harder to ensure that their children have greater German-specific capital and are placed in the highest tier of secondary schooling.

Chapter 2 further explored the intergenerational process through which integration was associated with child secondary-school tracking. Results from these analyses indicate that multiple measures of integration across both the parent and child generation directly influence the probability that Turkish-origin children are currently enrolled in the *Gymnasium*. Additionally, there are many indirect effects, in which the effect of more upstream integration measures on child secondary-school tracking are mediated by more downstream measures. Interestingly, while most direct and indirect effects of integration on secondary-school tracking were positive, in that higher levels of integration were associated with a greater likelihood of a child being currently enrolled in a *Gymnasium*, the direct effect of parent German citizenship was negative. Additionally, many of the indirect effects involving this variable were also negative. While this study was able to investigate citizenship status in a manner that has not been done before, this surprising, seemingly counterintuitive result indicates that there is still much to be learned about the effect of citizenship within the German context. Future work needs to be done to better understand the role of parent citizenship in the educational outcomes of Turkish-origin children. For those of Southern-European origin, no measures of integration were directly or indirectly associated with

likelihood of child *Gymnasium* enrollment, suggesting that factors outside of those included in the model determine secondary-school tracking for this group. The unique social circumstances that are experienced by Southern-European migrant families in Germany, a population that is generally understudied, and the effect these circumstances have on economic and social outcomes remains to be further explored.

Chapter 3 of this dissertation aimed to further understand the formation of national and ethnic identity within migrant-origin youth across the adolescent life course. Using a longitudinal framework of social-identity formation, it was possible to model the trajectories of these two identities between the ages of 15 and 21, as well as investigate the extent to which national and ethnic identities covaried across this important segment of the life course. Understanding the impact that contextual factors play in the identity development of migrant-origin youth, this study also investigated how these trajectories were a function of both national origin and generational status. Results show that, generally, those of migrant-origin gradually increase in their feelings of belonging toward the German mainstream as they age, while at the same time maintaining their levels of ethnic identity through adolescence. While the shape of these trajectories differed by national-origin, the underlying rate of growth in national and ethnic identity was constant across the groups. Additionally, those of migrant-origin were able to develop these social identities across time independently, with no covariance between the growth of one and the growth of the other. This finding builds on previous work that has investigated the interaction of these two identities cross-sectionally, greatly improving the current body of literature on dual-identity formation in migrant-origin youth.

For the analysis of generational effects, this study built on the understanding of classic assimilation theory that each subsequent generation would increase in their feelings of belonging to the receiving nation while at the same time decrease in the feelings of belonging toward the sending nation. However, given the ethnic understanding of "Germanness" that still pervades German national consciousness (and citizenship law), along with variations in the "brightness" of the social boundaries between native Germans and different migrant-origin groups, this study also tested the extent to which the classic understanding of intergenerational assimilation was applicable to different national-origin groups,

at least as it pertains to social identities. Results from Chapter 3 show that generational effects on the trajectories of both national and ethnic identity are largely a function of national origin, with the national-origin group with the least amount of social distance between themselves and the native-German group, those from families of Eastern European or former U.S.S.R. origin, having a generational pattern of identity most in line with a classic understanding of assimilation. In contrast, for those of Turkish and Southern-European origin, results indicate that attachment to an ethnic identity remains constant across all generations (except for third-generation Turks), indicating that classic understandings of assimilation are only partially true for these groups. Thus, the extent to which classic notions of intergenerational assimilation can explain national- and ethnic-identity formation in migrant-origin adolescents in Germany is largely a function of where the adolescent is ancestrally from.

The final empirical chapter, Chapter 4, aimed to better understand how native-German young adults understand different push factors of forced migration to be legitimate claims to refugee status and entry into Germany, and to conceptually group this population based on their attitudes towards refugee legitimacy. Using a Latent Class Analysis procedure to measure these underlying representation profiles, analysis from this chapter uncovered four profiles that characterize attitudes towards refugee legitimacy among the native-German young-adult population. First was a profile that generally viewed almost all causes of refugee entry as legitimate and represented around three-quarters of the population. Second was a profile that viewed civil war and natural disaster or starvation be to legitimate reasons for entry, but not persecution. This profile represented a little over 15 percent of the population. Third was a profile that found civil war and political, religious, or ethnic persecution to be legitimate causes of refugee entry, but not natural disaster or starvation. This profile represented seven percent of the population. The final profile, which only represented a little over three percent of the population, was a profile that generally saw all forms of refugee entry to be illegitimate. For all classes, the understanding that economic need was a legitimate cause for refugee entry was not strongly endorsed.

Further analysis mapped these profiles onto several variables of sociological interest, including parental education, ethnic composition of friendship networks, and attitudes toward migrant integration.

Ultimately, these results indicated that profile membership was associated with all of these sociologically important variables, and interesting patterns were uncovered regarding the extent to which these associations differed between different representational profiles. Ultimately, this chapter utilized a novel method of measuring social representations regarding refugee legitimacy to improve the current body of literature on German attitudes towards this specific form of migration. The effect that these social representations will have in determining migration and integration policy in Germany as this cohort ages through adulthood remains to be seen.

…

Taken together, this dissertation provided an in-depth investigation into three topics that are central to migration, integration, and adolescence in Germany, and helped to expand historical and contemporary theories of migrant integration that are inherently limited due to their initial formulations based on the U.S. context. As German adolescents, both those of native-German ancestry and those of migrant origin, continue to age through this critically important period of the life course, they will do so in a nation that is still struggling to understand what it means to be a migrant-receiving destination almost 70 years after becoming one.

APPENDIX A: IMPUTATION INFORMATION FOR CHAPTER 2

Due to missingness on the parent-supplied variables used in the analysis of Chapter 2, multiple imputation was utilized to impute values for these variables when missing. This imputation utilized information from all variables included in the study. **Table A1** lists the variables that had imputed values, and the number of respondents for which that value was imputed.

Table A1: Imputation Information for Parent-Supplied Variables

	Non-missing	Missing	Imputed
Parent Education	2681	249	249
Parent Educated in Germany	2288	642	642
Parent German Citizenship	2291	639	639
Parent Occupational Prestige	2709	221	221

APPENDIX B: NATIONAL-ORIGIN GROUPINGS IN CHAPTER 2

Table B1 lists the nations of origin that were included in the larger national origin groupings used in the analysis. In the far-left column are the three national origin groupings of the current study. The middle column lists the national origin groups that were available in the CILS4EU-DE dataset. While some national origins, such as Italy, were available at the country level, small cell counts for many of the nations of origin required collapsing of these sending nations into large regional or geopolitical groupings to protect the identity of the respondents (Eastern Europe, former U.S.S.R, etc.). However, while analysis is not possible below these dataset-imposed national groupings, documentation available from the CILS4EU data team lists the nations that are included in these groupings (Dollman et al. 2014). These individual nations are listed in the far-right column.

Table B1: Nations in the National-Origin Groupings

National-Origin Grouping	Nation-groups available in CILS4EU-DE	Nations included
Turkish	Turkey	Turkey
Eastern Europe/former U.S.S.R.	Poland	Poland
	Eastern Europe	Bulgaria Czechoslovakia Czech Republic Former East German Territories Hungary Romania Slovakia
	Former U.S.S.R	Azerbaijan Armenia Belarus Georgia Kazakhstan Kyrgyzstan Moldova Russian Federation Ukraine U.S.S.R.
Southern Europe	Italy	Italy
	Greece	Greece
	Southern Europe	Albania Portugal Spain

APPENDIX C: ANALYSIS OF MISSING AND USE OF FULL INFORMATION MAXIMUM LIKELIHOOD IN CHAPTER 3

Across the seven waves of the CILS4EU-DE data collection, missingness due to attrition was present at each wave. **Table C1** shows the number of respondents from the analytic sample who had non-missing information for each type of identity across the seven waves of data collection. In order to account for this missingness, the multivariate latent growth curve models of the current study utilized full information maximum likelihood (FIML). FIML does not impute values for variables that are missing within an observation, rather, it utilizes all available information to produce parameter estimates that create the maximum likelihood function for the model (Enders and Bandalos 2001). This is done by determining the case-wise likelihood function of each observation within the sample using all information that is available for a given observation, summing all of these individual likelihood functions to create the overall likelihood function of the model, and then estimating parameter estimates that reproduce this overall likelihood function (Enders and Bandalos 2001) When information is Missing At Random (MAR), FIML has been found to produce unbiased estimates more efficiently than other methods of missing data imputation (Enders and Bandalos 2001).

To generally asses if missingness on the identity variables is likely MAR, a set of logistic regressions were carried out. Results for the first set of logistic regressions are shown in **Table C2**. In these models, the dependent variable is a dichotomous indicator, in which respondents are coded "1" if they are missing information on national identity at Wave 7. In Models 1-3, missingness on national identity at Wave 7 are regressed on national identity at Wave 1, Wave 3, and Wave 5 respectively. Here, results show that values of national identity at wave one and wave three were negatively associated with the likelihood of missing information at Wave 7. However, in Models 4-6, this first set of models was re-run while controlling for national origin, generational status, German citizenship, parental occupational status, and gender, each of which could act as confounding variables that explain both responses to identity questions at Waves 1, 3, and 5, and the likelihood that data is missing at Wave 7. Once controlling for these variables, all identity variables that were significant in the previous three models are

no longer predictive of missingness at Wave 7. An identical set of tests were run for missingness for ethnic identity, the results of which can be found in **Table C3**. Results from this second set of logistic regression tests were the same as in the first. These two sets of analyses provide evidence that missingness on these identity items is likely to be MAR, and FIML is an appropriate means by which to account for missingness due to attrition at later waves of the CILS4EU-DE sample. Similar analyses were carried out testing for the likelihood that respondents were missing information at Wave 5, with the same results being found. Collectively, these logistic regression analyses suggest that the data are MAR, i.e., that those missing data at later waves are not missing as a function of their values of the identity variables at earlier waves.

Table C1: Respondents Non-Missing on the Identity Variables by Wave

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7
National Identity	1,845	1,528	1,221	1,069	980	803	650
Ethnic Identity	1,869	1,529	1,234	1,082	994	804	663

Table C2: Logistic Regression of National Identity Missingness at Wave 7

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
National Identity, Wave 1	-0.294***			-0.044		
	(0.09)			(0.11)		
National Identity, Wave 3		-0.283***			-0.166	
		(0.09)			(0.11)	
National Identity, Wave 5			-0.046			0.070
			(0.13)			(0.15)
Controls[a]	No	No	No	Yes	Yes	Yes
Constant	0.844***	0.303	-0.650*	2.250***	1.893***	0.708
	(0.18)	(0.23)	(0.26)	(0.32)	(0.38)	(0.44)
Observations	1,845	1,221	980	1,573	1,097	885

*=p≤.05, **=p≤.01, ***=p≤.001

[a] National origin, generational status, German citizenship, parental occupational status, and gender

Table C3: Logistic Regression of Ethnic Identity Missingness at Wave 7

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Ethnic Identity, Wave 1	0.183**			0.060		
	(0.06)			(0.07)		
Ethnic Identity, Wave 3		0.056			-0.057	
		(0.08)			(0.10)	
Ethnic Identity, Wave 5			0.120			0.081
			(0.07)			(0.09)
Controls[a]	No	No	No	Yes	Yes	Yes
Constant	0.038	-0.399**	-0.930***	2.029***	1.635***	0.516
	(0.12)	(0.14)	(0.17)	(0.30)	(0.45)	(0.60)
Observations	1,869	1,234	994	1,590	1,108	900

*=p≤.05, **=p≤.01, ***=p≤.001

[a] National origin, generational status, German citizenship, parental occupational status, and gender

For the final analysis, FIML was carried out in Mplus. During this process, as the name implies, all information available in the data was utilized to best estimate the model parameters in the presence of missing data (Enders and Bandalos 2001). This includes information on these identity variables for which there was no missingness, as well as information from the independent variables of the model from all respondents, regardless of missingness on the identity variables. These independent variables were national-origin, generational status, and gender (the last of which was included in the model as a control). In addition to the variables included in the model, Mplus allows for auxiliary variables to be included to assist in the FIML process. These variables assist in the estimation of the maximum likelihood function, but the estimation of their parameter effects is not included in the structural equation model (Asparouhov and Muthén 2008[5]). Additionally, these variables can help to eliminate potential bias in estimation due to variables being NMAR, if these auxiliary variables explain the underlying missing data patterns (i.e., why respondents are missing) (Asparouhov and Muthén 2008). In this analysis, citizenship status and parental occupation were included as auxiliary variables.

[5] Asparouhov, Tihomir, and Bengt Muthén. 2008 "Auxiliary Variables Predicting Missing Data (Technical Report)". Retrieved from http://www.statmodel.com/download/AuxM2.pdf

APPENDIX D: DESCRIPTION OF WEIGHTED-LEAST SQUARES ESTIMATOR USED IN CHAPTER 3

In the latent growth curve models utilized in the current study, the dependent identity variables are ordinal categorical measures on a Likert scale from 0-3. Unfortunately, because these variables are not continuous in nature, many of the distributional assumptions underlying these models are not met (Muthén 1983). In order to correct for this, it is necessary to transform these categorical variables in such a way that they better approximate the implied latent continuous variables for which they are proxy measures. Muthén (1983) states that this can be done by taking the cumulative proportion of cases in each category of a categorical variable, i.e., the proportion of the sample that is represented by this value of the categorical value *or lower*, and assigning each of these categories a value equal to their distribution on a normal curve with a mean of zero and standard deviation of one. By doing this, it is possible interpret categories of a categorical variable as observed "thresholds" along the latent continuous variable being measured by the categorical variables (here, social identity). The formula to estimate the value of these thresholds is,

$$a_t = \Phi^{-1}\left(\sum_{k=1}^{t} \frac{n_k}{n}\right), t = 1, 2, \ldots, c-1$$

where a_t the estimated threshold for each category of a categorical variable, Φ^{-1} is the inverse of the normal distribution function, $\frac{n_k}{n}$ is the proportion of the sample that is represented by category *k* of the categorical variable, and *t* is the category of the categorical variable for which the threshold is being estimated. Here, *c* is the total number of categories, indicating that this process of threshold estimation is done for all categories of the categorical variable except for the last (the cumulative proportion represented by this category is inherently 1.000). Ultimately, this weighting process creates a variable that more closely matches the normal, continuous latent variable underlying the observed categorical one. This provides improved measurement over simply assuming a constant one-unit change between values

of a categorical variable, and treating these variables as continuous has potential negative implications for the model (Salari et al. 2018).